963

DESIGN MEMORANDUM NO. 10A

PRELIMINARY MASTER PLAN

PART OF THE MASTER PLAN

FOR

SUMMERSVILLE RESERVOIR

GAULEY RIVER

WEST VIRGINIA

U.S. ARMY ENGINEER DISTRICT, HUNTINGTON
CORPS OF ENGINEERS
HUNTINGTON, WEST VIRGINIA

15 JUNE 1960

ENGCW-O (3 Feb 61) 2nd Ind
SUBJECT: Preliminary Master Plan, Summersville Reservoir, Gauley River, West Virginia

Office of the Chief of Engineers, Washington 25, D. C. 6 April 1961

TO: Division Engineer, U. S. Army Engineer Division, Ohio River
CINCINNATI, OHIO

The request to modify the Preliminary Master Plan is approved.

FOR THE CHIEF OF ENGINEERS:

Robert J. Gieseke

ROBERT J. GIESEKE
Lt. Col., Corps of Engineers
Assistant Director of Civil Works
for Middlewestern Divisions

2 Incls:
1. w/d cy on file
2. Ltr dtd 27 Jan 61
W.Va. Cons. Comm.
3. Ltr Hunt Dist
3 Mar 61 w/Incl

OVDGR (3 Feb 61) 3rd Ind

H285/68(Summersville Reservoir)(Recr. Fac.)
Div Engr, US Army Engr Dist., Ohio River, Cinti., Ohio 12 April 1961

TO: District Engr, US Army Engr Dist., Huntington,
Huntington 1, W. Va.

OVHGP

E. E. A.

2 Incls:
n/c

SUBJECT: Preliminary Master Plan, Summersville Reservoir, Gauley River, West Virginia. (Ltr. ER Hunt. 2/3/61)

H 285/68(Summersville Res.)(Design) OVDGR 1st Ind.
Div Engr, U S Army Engr Div, Ohio River, Cincinnati, Ohio 13 March 1961 -

TO: Chief of Engineers, Department of the Army, Washington, D.C. ENGCW-O

1. The proposal contained herein is to acquire 1320 acres of land essentially comprising the Long Point Area in the Summersville reservoir project. It is proposed to acquire these lands at a Federal cost of about $319,000 in lieu of relocating roads and utilities estimated at $318,400 that would otherwise be required to serve residents of the area. The proposal contained in the basic correspondence of 3 February 1961 as modified by additional information included in the District Engineer's letter of 3 March 1961, included herewith, provides that the Long Point Area, and the remaining public use and access areas would be turned over to the State of West Virginia by license agreement for development over and above that proposed for Federal action in the preliminary Master Plan approved by OCE, 21 July 1961, and for operation and maintenance. It is to be noted that the State of West Virginia agrees to furnish access to the Long Point area, estimated by the District Engineer to cost about $150,000.

2. This proposal has been coordinated with Real Estate Division in conformance with par. 5, EM 405-2-835.

3. The recommendations of the District Engineer as modified by the conditions contained in his letter of 3 March 1961, are concurred in and approval of modification of the Preliminary Master Plan is requested.

FOR THE DIVISION ENGINEER:

C. L. LANDAKER
Colonel, Corps of Engineers
Deputy Division Engineer

3 Incls.-
1. - n/c (cy w/d)
2. - n/c (cy w/d)
3. - Ltr Hunt Dist dtd 3/3/61 w/incl (dupl)

U. S. ARMY ENGINEER DISTRICT, HUNTINGTON
CORPS OF ENGINEERS
502 8TH STREET
HUNTINGTON 1, WEST VIRGINIA

ADDRESS REPLY TO.
DISTRICT ENGINEER
U. S. ARMY ENGR DIST. HUNTINGTON
P. O. BOX 2127
HUNTINGTON 18, WEST VIRGINIA

REFER TO FILE NO. OVHGP

3 March 1961

SUBJECT: Preliminary Master Plan, Summersville Reservoir, Gauley River, West Virginia

TO: Division Engineer
U. S. Army Engineer Division, Ohio River
ATTN: OVDGR
Cincinnati, Ohio

1. Reference is made to OVHGP letter dated 3 February 1961, subject as above, regarding the acquisition of lands in the Long Point area of the Summersville Reservoir.

2. Pursuant to recent telephone conversations between representatives of CRD and this office, in which further commitments from the State of West Virginia were suggested as being desirable, a conference was held with representatives of the Conservation Commission of West Virginia. The Conservation Commission was informed that more favorable consideration could be given to the acquisition of the Long Point area if the State would furnish reasonably firm commitments to the Corps in the form of a letter of intent. The commitments were to be a statement of the intention of the State to assume responsibility for the administration, operation, maintenance and further development of all the reservoir recreation sites and the construction of an access road to the Long Point area if it is acquired. The representatives of the Conservation Commission stated during the conference that the State would provide such commitments, subject to the extent that funds were made available by the State Legislature. However, it was stated during the conference and again in the letter of intent, a copy of which is inclosed, that the commitments would be contingent upon the acquisition of the Long Point area by the Federal Government. It is relatively certain that unless the Long Point area is acquired, the State will not assume responsibility for the remaining areas.

3. Reference is made to paragraph 3 of CCE-ENGCW-E, 2nd Ind, dated 13 February 1961, subject, Summersville Reservoir, Gauley River, West Virginia, Design Memorandum No. 7, Part 2, Report on

Encl 3

OVHGP 3 March 1961

SUBJECT: Preliminary Master Plan, Summersville Reservoir, Gauley River, West Virginia

Necessity for Highway Relocations, State Secondary Roads. It is suggested by OCE that the traffic count of 50 vehicles per day, as shown for Secondary Road 9/8, be used as a measure of the anticipated use, under project conditions, of Item 3 (access replacement for State Route 9) and that the construction standards for Item 3 should conform to such use. It is believed that if the Long Point area is not purchased, the recreational area of the McKee Creek launching site and the development of the Long Point peninsula by private interests would involve a usage of the access road to an extent somewhat greater than the 50 vehicles per day as suggested. An average traffic count of 75 vehicles per day, with higher counts during the peak recreation season, is anticipated. In view of this, it is not considered realistic to reduce the standards used for Item 3 in EM 7, Part 2, if the area is not purchased. Should the area be purchased, the State would provide a suitable access road to the area for recreational development.

4. Since the Long Point area is needed to assure adequate access to the reservoir for recreational purposes; since the purchase of the area in lieu of the alternative of constructing an access highway will not result in appreciable, if any, additional cost to the Federal Government; and, since the State of West Virginia through its Conservation Commission has expressed firm intentions of assuming the responsibility of developing the highly desirable Long Point area for recreational purposes, including the construction of a suitable access road to the area, it is recommended that the Long Point area, as described in the previous letter of 3 February 1961, be approved for purchase. If the purchase is approved, the previously submitted Preliminary Master Plan will be modified.

Steven Malevich

STEVEN MALEVICH
Colonel, Corps of Engineers
District Engineer

1 Incl (in trip) - Cy ltr
1. Cy ltr dtd 16 Feb 61 from W. Va. Conservation Commission

STATE OF WEST VIRGINIA
CONSERVATION COMMISSION
CHARLESTON

WARDEN M. LANE

February 16, 1961

Colonel Steven Malevich
U. S. Army Corps of Engineers
237 Fourth Avenue
Huntington, West Virginia

Reference: Acquisition Program
Summersville Reservoir Project
Gauley River, West Virginia

Dear Colonel Malevich:

It is my understanding that the Federal Government is giving consideration to the acquisition of the "Long Point Area" for recreational use providing that the State of West Virginia would be willing to assume the responsibility for the operation, maintenance, and the further development of the area over and above those facilities called for on your preliminary master plan.

The State of West Virginia, through its Conservation Commission, recognizes the recreation potential of the reservoir to the people of the State, and it is the intent of the Conservation Commission to enter into a license agreement with the Corps of Engineers for the recreation management and development of the reservoir, after the initial installations called for on the preliminary master plan are constructed, to the extent that funds are made available to the Conservation Commission by the State of West Virginia or other sources for that purpose. The commitment made in the previous sentence, of course, is contingent upon the acquisition of the "Long Point Area" by the Federal Government.

If the "Long Point Area" is acquired, the Conservation Commission would be agreeable to the construction of the access road as indicated on the preliminary master plan provided that funds could be appropriated for that purpose.

Sincerely yours

Warden M. Lane

Warden M. Lane
Director

WML/McK
es

U. S. ARMY ENGINEER DISTRICT, HUNTINGTON
CORPS OF ENGINEERS
502 8TH STREET
HUNTINGTON 1, WEST VIRGINIA

ADDRESS REPLY TO:
DISTRICT ENGINEER
U. S. ARMY ENGR DIST. HUNTINGTON
P. O. BOX 2127
HUNTINGTON 18, WEST VIRGINIA

REFER TO FILE NO. OVHGP

3 February 1961

SUBJECT: Preliminary Master Plan, Summersville Reservoir, Gauley River, West Virginia

THRU: Division Engineer
U. S. Army Engineer Division, Ohio River
Cincinnati, Ohio
ATTN: OVDGB

TO: Chief of Engineers
Department of the Army
Washington, D. C.
ATTN: ENGCW-O

1. Reference is made to paragraph 2 of OCE 6th Ind., dated 21 July 1960, on basic letter, subject as above, dated 21 August 1959, regarding acquisition of lands in the Long Point area of the Summersville Reservoir.

2. Approximately 1320 acres of land lie outside the proposed fee taking line on the Long Point peninsula, of which, approximately 817 acres are south of State Route 9 while 503 acres are north of that State route. The area is shown on the inclosed map. This area, if left in private ownership, will be bounded on three sides by Government-owned land and the water surface of the reservoir. Since this area provides the only acreage adjacent to the reservoir where relatively easy access to the pool is available in conjunction with enough reasonably flat land for development of camp sites, it is reasonable to assume from experience at other reservoirs that private interests would exploit the area for private cabin sites, commercial enterprises and private club camp sites. It is also reasonable to assume that once such private interests were established, regulation of the reservoir levels for operational purposes such as low-flow augmentation and seasonal pool fluctuation would incur vigorous opposition from those private interests, even to the point of asking Congressional intercedence to establish a stable pool. It is my opinion that to allow private interests to develop this area adjacent to and near the center of the reservoir for private gain would be

detrimental to the public welfare. It is considered highly desirable that the area on Long Point be acquired in order to control the development of project areas to protect and conserve recreation and other resources in accordance with paragraph 4d of EM 1130-2-302.

3. The Long Point area, if acquired, would provide suitable space for the development of basic public facilities such as camping areas, swimming beaches, boat launching sites, picnicking and fishing facilities, as set forth in EM 1130-2-312. The area would be served by an access road (at a 10- to 15-year frequency of flooding elevation) from the old section of U. S. Route 19 and would be centrally located with respect to the main highways, U. S. 19 and State 39, and the town of Summersville. The easy accessibility would encourage day-use visitation of the area as well as overnight and vacation camping use. The only other area adjacent to the reservoir that contains adequate and suitable space for such developments is the Battle Ridge area which is about 7 miles from State Route 39, 14 miles from U. S. Route 19 and about 3 miles from the nearest suitable secondary State route. The provision of access to the Battle Ridge area would cost about $300,000 and, even with suitable paved roads, its isolation would discourage day-use visitation. Because of its isolation and the high cost of providing access, the Battle Ridge site is not proposed for development.

4. The U. S. Fish and Wildlife Service has recommended the purchase of the land on the Long Point peninsula as mitigation for wildlife losses of some $7,200 annually to be incurred as a result of the project construction and, by making those lands available to the West Virginia Conservation Commission for development and management, to reap additional benefits over the annual cost of management of about $11,500 annually for fish and wildlife purposes.. Even though it is not now proposed to make these lands available for a fish and wildlife management area, it is considered that the wildlife losses would be mitigated and that some benefits would accrue. It is also pertinent to point out that Long Point is the only area near the reservoir that would provide reasonably good access to the winter, or permanent, pool for bank fishermen. If this area were to remain in private ownership and posted against trespass, fisherman use of the reservoir during periods of drawdown from the seasonal pool would be significantly reduced.

5. Paragraph 4f of EM 1130-2-302 states that cooperating State or local agencies "will be encouraged to provide recreational facilities to the maximum extent possible, and to be responsible for maintaining and operating areas which are necessary for full development and enhancement of these resources . . ." Representatives of the

West Virginia Department of Conservation, the cooperating agency in this instance, have stated in informal discussions that that Department has been and will continue to be reluctant to assume responsibility for developing, maintaining and operating recreational or other areas when those areas are not of sufficient size to warrant the expenditure of State monies. An example of this reluctance where size of areas are concerned is the refusal by the State of West Virginia to accept recreation and access areas in the Sutton Reservoir Project. The acquisition of the Long Point area has been recommended by the West Virginia Conservation Commission in a letter dated 27 January 1961. A copy of the letter is inclosed. It is considered reasonable to assume, even though no commitments have been made by the State, that, should the area be acquired, the State would make major capital investments over a period of years. An example of such State participation is the development of project lands at the Bluestone Reservoir where State expenditures are approaching a million dollars.

6. It is estimated that the purchase of the 1,320 acres on Long Point which lie outside the proposed taking line would cost $319,000. The relocation of State Route 9, designated as Item 3 on the inclosed drawing, to provide access if the area is not purchased was estimated to be $301,000 in Design Memorandum No. 7, Part 2, Highway Relocations. In addition, power lines and telephone lines would have to be removed and relocated at an estimated (preliminary) cost of $12,800 and $4,600, respectively. The power and telephone line relocations are to be covered in a future design memorandum. The total relocations cost, if the area is not purchased, is then $318,000. Considering the public-use and recreational benefits and the fish and wildlife benefits, it is deemed economically feasible to purchase the area in lieu of furnishing access and utility relocations.

7. If purchased, the Federal cost for the development considered necessary to provide public access to the reservoir, over and above that proposed for the Salmon Run and McKee Creek launching sites, which are located adjacent to and on the Long Point peninsula, respectively, would be the cost of providing access and safety service roads. It is considered that the basic responsibility of the Federal Government to provide access to the area would be met by the provision of an all-weather, gravel-surfaced access road at a 10- to 15-year frequency of flooding elevation. The paving of the access road and service roads, if considered necessary by the State, would be a State responsibility. Further development of the area for camping, swimming, picnicking and other day use activities would also be the responsibility of the State. The estimated cost of providing the gravel-surfaced access road and service roads is $150,000. Because it is considered necessary to provide at least one

area in the reservoir where camping, swimming and other basic facilities can be developed and because there are only two such areas available, the Long Point area and the Battle Ridge area, a comparison of costs for acquisition and access is given below. An estimate of $300,000. for a bituminous-paved access road was made in Design Memorandum No. 7, Part 2, Highway Relocations. However, for the following comparison an estimate was made for a comparable gravel-surfaced access road to the Battle Ridge area.

	Long Point	Battle Ridge
Cost for purchase in excess of providing access	$ 1,000	$ 0
Cost of providing recreation access	110,000	225,000
Cost of service roads	40,000	40,000
Total	$151,000	$265,000

It has already been established that the Battle Ridge area will not be developed because of its isolation and high cost of access. The Long Point area would cost about $114,000 less and would be advantageously located near main highways.

8. The McKee Creek and Salmon Run launching sites would draw an estimated 40 to 50 percent of the expected 300,000 annual visitation should the Long Point area not be acquired. A conservative estimate of benefits for recreation alone at these two sites is $30,000. Should the Long Point area be purchased, then developed and maintained by the State, it is estimated that the attendance at the Long Point area, including the McKee Creek and Salmon Run sites, would increase to between 60 and 70 percent of the total reservoir visitation. The annual benefits are estimated to be about $45,000, or an increase of $15,000 annually for the area. This estimate does not include boating benefits for fishing or wildlife benefits, and is based on the visitation figure of 300,000, not on an increased visitation which could reasonably be expected due to the acquisition of the Long Point area.

9. It is recommended that, for the above given reasons, the 1,320 acres on the Long Point peninsula be made a part of the Preliminary Master Plan (Design Memorandum No. 10A) as an area to be acquired, developed and utilized as a public use area.

Steven Malevich

STEVEN MALEVICH
Colonel, Corps of Engineers
District Engineer

2 Incl
1. Reservoir Map (trip)
2. Cy of ltr dtd 27 Jan 61 from W. Va. Conservation Commission (trip)

STATE OF WEST VIRGINIA
CONSERVATION COMMISSION
CHARLESTON

VARDEN M. LANE
DIRECTOR

January 27, 1961

Colonel Steven Malevich
District Engineer
U. S. Army Engineer District, Huntington
Post Office Box 2127
Huntington 18, West Virginia

I refer to recent discussions between members of your staff and representatives of the West Virginia Conservation Commission regarding the ultimate development of reservoir lands at the Summersville Reservoir and specifically to the necessity for acquisition of the "Long Point" peninsula for recreational purposes.

During the discussions, it became evident that due to the large drawdown of the summer pool to the winter pool that potential recreational usage of the reservoir will be concentrated in one season of the year, roughly June through September, and be limited generally to boating, water skiing, swimming, picnicking and camping. However, fishing, especially bank fishing, and hunting will possibly continue throughout the year in the appropriate seasons. Also developed in the discussions, was the fact that due to the amount and type of lands being purchased or to be purchased for project purposes, only two areas from the State's point of view are suitable for development as recreational areas, the remainder being steep to precipitous hillsides. One of these areas, Battle Ridge, is being purchased for project purposes while the other, Long Point, is being considered for purchase. It is the opinion of the West Virginia Conservation Commission that, for reasons given in the following paragraphs, the Long Point area should be purchased for recreational development.

The Battle Ridge area, the only other suitable area, will be isolated due to the flooding of present access roads and the cost of providing adequate access roads necessary for a primary recreation area would be prohibitive. The area is some distance from either of the main highway arteries of the area, U. S. Route 19 and W. Va. State Route 39. However, due to the existing vegetation, meadow, pasture and small woodland tracts, game management practices would be most feasible for this area.

Since its isolation and difficulty of access precludes the development of Battle Ridge as a major recreational area, the only other site that contains enough area for the development of recreational facilities suitable for a state park area is the centrally located Long Point peninsula. Without the acquisition of this area, it is believed that it will be developed by private individuals and commercial enterprises to the point where efficant State management of the reservoir lands around the perimeter of the reservoir would be infinitely more difficult, if not impossible. With acquisition of this area, a short access road from the present U. S. Route 19 would provide convenient access from the relocated U. S. Route 19, with only a short distance to W. Va. State Route 39. The area could then be developed for day-use activities, camping and possibly cabin and overnight facilities for fishermen. The primary recreation usage would be concentrated in one large area, control or management would be made easier and the possibility of the State of West Virginia assuming responsibility for the administration of reservoir lands would be greatly enhanced. Since recreational activities, as such, will be limited to the months June through September, some game management practices by the State could also be initiated in the area for the benefit of hunters.

The West Virginia Conservation Commission, foreseeing the possibility of assuming future management and control of the reservoir lands, recommends that the Federal Government acquire the land on the Long Point peninsula for development as a recreational area.

Sincerely yours,

Warden M. Lane

Warden M. Lane
Director

WML:gc

ENGCW-O (21 Aug 59) 6th Ind
SUBJECT: Preliminary Master Plan, Summersville Reservoir, Gauley River

Office, Chief of Engineers, Washington 25, D. C., 21 July 1960

TO: Division Engineer, U. S. Army Engineer Division, Ohio River
Cincinnati, Ohio

1. The Preliminary Master Plan is approved as recommended in the preceding 5th Indorsement.

2. With reference to par. 3 of the preceding 4th Indorsement, this office should be informed at the appropriate time as to what specific proposals will be made with regard to acquisition of lands in the Long Point area for fish and wildlife purposes.

3. Upon completion of acquisition, careful consideration will be given to the lands acquired under "good real estate practices" for priority 1 use and for fish and wildlife management.

FOR THE CHIEF OF ENGINEERS:

2 Incls w/d

MARK S. GURNEE
Chief, Operations Division
Civil Works

OVDGB" 7th IND.
OHIO RIVER DIVISION
Date 7/27/60
To: Dist Engr US Army Engr Dist, Hunt
0 Incls OVHGP

OVDGB (21 Aug 59) 5th Ind
SUBJECT: Preliminary Master Plan, Summersville Reservoir, Gauley River

H285/68 (Summersville Res.)(Design)
Div Engr, US Army Engr Div, Ohio River, Cincinnati, Ohio 30 June 1960

TO: Chief of Engineers, Department of the Army, Washington, D.C.

ENGCW-O

1. Subject to the following minor corrections it is recommended that the design memorandum be approved as a guide for real estate taking and for further planning the public use development of the reservoir area.

2. On Exhibits 4B and 4E State Route 11 should be State Route 9 as shown on Exhibits 4C and 4D.

3. In the cost summary on page 1 of Appendix I the $400,800 amount is the total Federal and non-Federal costs, while the total Federal cost should be $379,800.

FOR THE DIVISION ENGINEER:

C. L. LANDAKER
Colonel, Corps of Engineers
Deputy Division Engineer

2 Incls-n/c
2 cys #1 w/d

OVHGP (21 Aug 59) 4th Ind
SUBJECT: Preliminary Master Plan, Summersville Reservoir, Gauley River

U. S. Army Engr Dist, Huntington, WVa. 17 June 1960

THRU: Division Engineer, US Army Engr Div, OR, Cincinnati, Ohio
ATTN: OVDGB

TO: Chief of Engineers, Department of the Army, Washington, DC
ATTN: ENGCW-O

1. Transmitted under separate cover are seven copies of Design Memorandum No. 10A, Preliminary Master Plan, Summersville Reservoir, revised as requested by 2nd Ind.

2. In accordance with paragraph 1a and 1b of 2nd Ind., reference to uses such as cabin areas and game management areas have been deleted and the Salmon Run site has been reduced to only the lands needed for basic use and access.

3. The Long Point area, recommended by the U. S. Fish and Wildlife Service for purchase as mitigation for wildlife losses due to project construction and as wildlife habitat enhancement, will be subject to separate consideration under the procedures of EM 1165-2-104. Congressional authorization for purchase may be sought.

4. Paragraph 1c requests consideration of acquiring several acres of land as a public use area at Arbuckle Branch. No area with sufficient suitable land exists near the launching site. Therefore, no recreation site has been recommended.

5. Proposed access roads and abandoned roads retained for access have been made subject to review in a relocations design memorandum.

6. Preliminary cost estimates have been modified in accordance with paragraph 1f(1) of OCE 2nd Ind, as modified by paragraph 8c(7)(a) of EM 1130-2-302, Change 3, dated 1 April 1960.

7. The cost estimates and development of overlooks, overlook structures and the roadside park have been deleted from the Preliminary Master Plan and will be covered in separate design memorandums.

8. Information requested by paragraph 2 of OCE indorsement follows: The general elevation of the land located on the left bank of the reservoir between the dam and where relocated U. S. 19 enters

the project area is above elevation 1775 and extends up to elevations of near 2000. The terrain in the area is rugged and is heavily wooded. From about elevation 1775 down to the elevation of the seasonal pool, 1650, the grade is very steep, even vertical in some areas, making access to the water impracticable.

9. Individual sketches of each site have been added to the memorandum in accordance with paragraph 3 of 2nd Ind. However, real estate information on tract boundaries and ownership is not available at this time and could not be shown.

10. The engineering and real estate aspects of the Preliminary Master Plan have been fully coordinated.

11. It is recommended that the Preliminary Master Plan be approved and that authority be given to proceed with the necessary real estate acquisition at an estimated cost of $7,800 for the public use areas.

2 Incl (sep cover)
1. Prelim Master Plan Summersville Resv (7 cys)
2. Exhibit No. 3, full size (3 cys)

STEVEN MALEVICH
Colonel, Corps of Engineers
District Engineer

U. S. ARMY ENGINEER DIVISION, OHIO RIVER
Corps of Engineers
315-335 Main Street
Cincinnati 1, Ohio

2 December 1959

OVDGB

SUBJECT: Summersville Reservoir, Gauley River - Preliminary Master Plan

TO: District Engineer
US Army Engineer District, Huntington
Huntington, West Virginia

OVHGP

1. Reference is made to paragraph two of third indorsement from this office dated 25 November 1959, File OVDGB, on your letter of 21 August 1959 on the above subject.

2. ENGWO has advised that the instructions in subparagraph 1 f (2) of their second indorsement will not be amended at this time.

FOR THE DIVISION ENGINEER:

/s/ E. E. Abbott
E. E. ABBOTT
Chief, Engineering Division

OVDGB (21 Aug 59 3rd Ind

H285/68 (Summersville Resv)(Design)
Div Engr, US Army Engr Div, Ohio River, Cincinnati, Ohio 25 Nov 1959

TO: District Engineer, US Army Engineer District, Huntington
Huntington, West Virginia

OVHGP

1. Returned for revision as outlined in the preceding 2nd indorsement.

2. Since it appears that the request in subparagraph 1f(2) of the 2nd indorsement is in conflict with the feature definitions of Account Nos. 8, 14, and 19 as given in change 11 of EM 11-2-101 that revision has been questioned informally with the Office, Chief of Engineers. It is suggested that no formal action is taken on this revision unless it is formally confirmed by O.C.E.

FOR THE DIVISION ENGINEER:

/s/ C. L. Landaker
C. L. LANDAKER
Colonel, Corps of Engineers
Deputy Division Engineer

ENGWO (21 Aug 59) 2d Ind
SUBJECT: Preliminary Master Plan, Summersville Reservoir, Gauley River

Office, Chief of Engineers, Washington 25, D. C., 12 November 1959

TO: Division Engineer, U. S. Army Engineer Division, Ohio River, Cincinnati, Ohio

1. To meet the objectives set forth in EM 1130-2-302 relative to the preparation of a Preliminary Master Plan, subject plan is returned for the modifications suggested below.

a. Although Exhibit No. 5 indicates that all the area inclosed within the heliotrope colored boundary line may be acquired under sound real estate practices, the map in this design memorandum should only determine the amount and location of lands needed to accommodate the public over the life of the project. Therefore reference to such uses as cabin areas and game management areas, not specifically basic use and access requirements, should be deleted from the map at this time.

b. Select the most desirable portion of the Salmon Run and Long Point peninsula area necessary to adequately meet the needs for public use and access and designate as one area.

c. Consider acquisition of several acres of land above the maximum flood control pool at the launching site shown at Arbuckle Branch to provide a public use area adjacent to State Route No. 39.

d. Although proposed access roads and abandoned roads retained for access shown on Exhibit 5 are of value as part of the preliminary master plan they should be made a subject for additional review in a design memorandum covering relocation of roads.

e. Reference par. 5(4). Since it is proposed to locate improvements between the top of the flood control pool and the seasonal pool information should be furnished as to what provisions will be made for the installation of sanitary facilities, as indicated, to prevent pollution of the reservoir waters. The feasibility of locating such facilities above the flood pool should be explored.

f. To comply with instructions contained in pars. 4j and 8c(7) of EM 1130-2-302 Exhibit 6, preliminary cost estimates should be modified to:

(1) Show initial cost (10 year period), future cost and cost of public use facilities to be borne by others. Furthermore, it appears that the estimated cost of sanitation facilities at the McKee Creek and Salmon Run areas is excessive.

(2) Delete the cost of road and parking proposed for use in connection with overlook structure and the overlook structure from Account No. 14, Recreational Facilities and show under Account Nos. 08 and 19. A separate design memorandum should be prepared for such features.

2. Information is requested as to the desirability of the land located on the left bank of the reservoir between the dam and where the relocated U. S. Route No. 19 enters the project area for public use and access development.

3. In order to show a more conclusive description of the sites selected, Exhibit No. 5 of subject design memorandum should be supplemented with sketches of each site showing the boundaries of tract ownership affected. Subsequent to approval of this design memorandum the sites selected should be shown on the Real Estate design memorandum segment maps.

4. In accordance with par. 8c(9) of EM 1130-2-302 this chain of correspondence and inclosures have been classified "For Official Use Only."

FOR THE CHIEF OF ENGINEERS:

/s/ Robert J. Giesen
ROBERT J. GIESEN
Lt Col., Corps of Engineers
Assistant Chief of Civil Works
for Middlewestern Divisions

2 Incls
w/d

H 285/68 (Summersville Res) OVDGB 1st Ind
SUBJECT: Preliminary Master Plan, Summersville Reservoir, Gauley River.
(Ltr fm Hunt Dist to OCE thru ORD dated 21 August 1959)

Div Engr, US Army Engr Div, Ohio River, Cincinnati, Ohio, 15 Sep 59

TO: Chief of Engineers
Department of the Army
Washington, D.C.

ENGWE

1. Subject to the following comments, it is recommended that the preliminary Master Plan be approved as a guide in establishing the real estate taking, and the development of public-use facilities.

2. The proposed utilization of land for game management and group camping does not justify the fee taking of the land within the peninsula bounded by McKee Creek, the main reservoir,and Salmon Run. Unless there is other justification for such expansion of the normal fee taking, the area should be deleted.

FOR THE DIVISION ENGINEER:

/s/ Lynn C. Barnes
C. L. LANDAKER
Colonel, Corps of Engineers
Deputy Division Engineer

2 Incls
#1 - n/c (2 copies w/d)
#2 - n/c (1 copy w/d)

U. S. ARMY ENGINEER DISTRICT, HUNTINGTON
Corps of Engineers
237 4th Avenue
HUNTINGTON, WEST VIRGINIA

OVHGP 21 August 1959

SUBJECT: Preliminary Master Plan, Summersville Reservoir, Gauley River

THRU: Division Engineer
U. S. Army Engineer Division, Ohio River
Cincinnati, Ohio

ATTENTION: OVDGB

TO: Chief of Engineers
Department of the Army
Washington 25, D. C.

ATTENTION: ENGWO

1. Transmitted under separate cover are seven copies of a Preliminary Master Plan for the Summersville Reservoir, prepared in accordance with EM 1130-2-302.

2. In planning for use of project lands and waters, consideration was given to the location of the reservoir and to the types of developments provided and the use made of those developments at other reservoirs and at State Parks and Forests in West Virginia. The recent increase in water sports, on the nations waterways and lakes indicates a need for more areas for such purposes. Fishing, always a major out-of-door recreation in West Virginia, has shown an increase over the past few years.

3. Six sites in the project area have been selected for development to provide for various day-use activities, camping and overnight facilities. Four other sites were selected as public launching ramps where abandoned roads entered the seasonal pool. These areas will afford facilities for camping, picnicking, boating, swimming and other related activities. All areas proposed for development are within the presently proposed fee taking line. The plan for development is shown on exhibit No. 5 of the report in reduced size and on the full size prints inclosed herein.

OVHGP 21 August 1959

SUBJECT: Preliminary Master Plan, Summersville Reservoir, Gauley River (Ltr to OCE, ENGWD thru ORD, OVDGB)

4. It is recommended that the Preliminary Master Plan be approved as a guide to the development, utilization and management of the reservoir area. In the event that the proposed fee taking line is modified with respect to normal criteria for real estate purposes, it is recommended that the land areas shown in color on exhibit No. 5 be purchased in fee to assure adequate access to the reservoir by the public.

/s/ H. J. Skidmore
H. J. SKIDMORE
Colonel, Corps of Engineers
District Engineer

2 Incls
1. Preliminary Master Plan, Summersville Reservoir (7 cys) (sep cover)
2. Exhibit No. 5, full size (3 cys)

DESIGN MEMORANDUM NO. 10A

PRELIMINARY MASTER PLAN
A PART OF THE MASTER PLAN
FOR
SUMMERSVILLE RESERVOIR
GAULEY RIVER
WEST VIRGINIA

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DESIGN MEMORANDUM NO. 10A

PRELIMINARY MASTER PLAN
A PART OF THE MASTER PLAN
FOR
SUMMERSVILLE RESERVOIR
GAULEY RIVER
WEST VIRGINIA

17 June 1960

1. AUTHORITY

Summersville Reservoir is a unit in the comprehensive flood control plan for the Ohio River Basin as approved by the Flood Control Act of 28 June 1938, Public No. 761, Seventy-fifth Congress, third session. This Preliminary Master Plan, prepared in accordance with EM 1130-2-302, is designed to guide the development, use and treatment of the land and water areas with specific reference to determining the extent of lands to be purchased or set aside for public recreational use.

2. DESCRIPTION OF PROJECT

The Summersville Reservoir will lie in Nicholas County, West Virginia, near the town of Summersville. The dam will be located on Gauley River 34.5 miles above the confluence of Gauley and New Rivers where they form the Kanawha River. The location is shown on exhibit No. 1. At spillway crest elevation 1710.0, the reservoir will have a gross storage capacity of 413,800 acre-feet, equivalent to about 9.7 inches of runoff from the 803 square mile drainage area above the dam. The dam will be of rock-fill construction with a central impervious core. It will be 357 feet high and will have a top length of 2150 feet. The spillway will be located about 3,500 feet west of the dam, through a low point on the rim of the reservoir and will be uncontrolled. Two dikes, located at low points on the western rim of the reservoir, will be of random fill with central impervious cores.

A pool for low-flow augmentation in the Kanawha River will be maintained from June through November of each year. Filling the reservoir will start on 1 April, will reach elevation 1650 by 1 June and be drawn down thereafter for low flow augmentation. As presently proposed, pool fluctuations would occur as follows:

Month	Most severe drawdown expected, once in 100 years at end of each month	Drawdown expected once in 10 years at end of each month	Minimum drawdowns at end of each month
June	1643.2	1646.9	1648
July	1624.7	1639.0	1646
August	1602.8	1617.9	1644
September	1566.9	1571.1	1610
October	1520.0	1520.0	1570

While the drawdown will be objectionable for recreation, it is expected that the pool will be intensely used for boating and fishing except during occasional extreme drawdown conditions. The pool at elevation 1650 will extend 13.7 miles upstream from the dam and will have a surface area of 2,723 acres. From 1 December through 31 March, a winter conservation pool, having a length of 4.5 miles and a surface area of 407 acres, will be maintained at elevation 1520, except when flood control storage is required. Pertinent data are shown on exhibit No. 2.

3. FACTORS INFLUENCING RECREATIONAL DEVELOPMENT

a. Natural resources and physical features. The topography of the reservoir area is comprised of short, rolling slopes of plateau country bordering on the narrow, winding and deep ravine cut by the Gauley River, with distant rugged mountain ridges in the background. Except for the walls of the river gorge, the scenic features are not considered unique or outstanding. However, the impounded water will blend with the assorted species of hardwood trees, shrubs and wild flowers to provide interesting and pleasant scenery. The brilliant colors of the wide variety of hardwood timber will add much to the beauty during the autumn season.

b. Access. Access to the general area of the reservoir is provided from the north and south by U. S. Route No. 19, and from the east and west by primary State Route No. 39. U. S. Route No. 19 will cross the reservoir pool about 4.6 miles above the dam and State Route No. 39 will cross about 8.5 miles above the dam. Access to the pool areas can be provided at several places by utilization of roads and highways abandoned for through traffic when portions of them are inundated by the conservation pool. Access roads to certain other sections of the reservoir are to be provided by the Federal Government.

c. Climate. The climate of the Gauley River basin is considered favorable to both summer and winter recreation activities. The average elevation affords cool nights and mild daytime temperatures during the

summer months, especially attractive to the population of the nearby Kanawha Valley where high summer temperatures prevail. Heavy rains of short duration occur during the summer season. While the elevation is not extreme, the winters are more severe than those experienced in nearby valley regions and the abundant and lasting snowfall should be favorable to winter sports.

d. Related recreation areas. Carnifex Ferry Battlefield State Park, operated by the West Virginia Conservation Commission, is located within two miles of the dam site and is the only public use area in the vicinity of the reservoir. The design capacity of this park is being exceeded due to its popularity for picnicking and general weekend day use. Recreational development at the Summersville Reservoir would alleviate the congestion at this park and permit its development as a battlefield monument, the original purpose of the park.

Recreational facilities that offer somewhat comparable activities to those afforded by the Summersville Reservoir are listed below and are shown on exhibit No. 1.

Name	Miles from town of Summersville	Facilities				
		Camping	Swimming	Boating	Fishing	Picnicking
Sutton Reservoir (1)	37	x	x	x	x	x
Bluestone Reservoir	58	x	x	x	x	x
Babcock State Park	28	x(2)	x		x	x
Holly River State Park	50	x(2)	x		x	x
Tygart Lake	118	x	x	x	x	x
Watoga State Park	55	x	x	x	x	x

(1) To be completed in 1960
(2) Cabins only.

e. Area affected. The area directly affected by the recreational aspects of the Summersville Reservoir is considered to be Nicholas County, in which the reservoir is located, and the six adjacent counties in West Virginia. It is realized that areas outside the zone will be affected, even to the extent of out-of-state visitors, but to a much lesser degree. While the facilities offered by the nearby Sutton Reservoir, now nearing completion, will be comparable to those of Summersville Reservoir, it is reasonable to assume that both areas will be well visited. The heavily populated, highly industrialized Kanawha Valley lies within one to three hours driving time and it is expected that the recreational use for both Summersville and Sutton Reservoirs will increase for a number of years. This assumption can be made in view of the general trend in industry to more leisure time through a shorter work week and the tendency to spend that leisure out of doors away from crowded urban areas. The metropolitan area of Charleston-

South Charleston is only 66 miles away and is expected to furnish a great percentage of the visitation. The populations of the counties within the principal zone of influence are given in the following tabulation:

County	1950 Population		
	Urban (1)	Rural	Total
Braxton	2,376	15,704	18,080
Clay	1,274	13,686	14,960
Fayette	28,525	53,915	82,440
Greenbrier	8,831	30,469	39,300
Kanawha	135,515(2)	104,115	239,630
Webster	1,313	16,577	17,890
Totals	177,834	234,466	412,300

(1) Towns and cities of 1,000 population or over.
(2) Includes 130,914 in Charleston-South Charleston metropolitan area.

f. Anticipated attendance. The average annual visitation at Summersville Reservoir is expected to be about 300,000. This figure was estimated by using the annual visitation figures for the past 5 years at Bluestone, Dewey and Tom Jenkins Reservoirs and adjusting for the nearness of the Sutton Reservoir and the proximity of the Charleston-South Charleston metropolitan area.

4. VIEWS OF INTERESTED AGENCIES

a. Conservation Commission of W. Va., Division of State Parks. A reconnaissance study of the recreational potential of the reservoir was made by the Division of Parks of the West Virginia Conservation Commission. It is the opinion of the Division of Parks that the area is suitable for day use, group camping, tent camping and cabin developments. Some of the isolated lands are desirable for game management and public hunting purposes. A report by the Division of Parks is included in appendix II.

b. United States Fish and Wildlife Service. Two reports by the U. S. Fish and Wildlife Service included, in appendix II, disclose that:

(1) The reservoir is expected to provide an attractive and well utilized fishery. Water level fluctuations are not expected to interfere radically with the spawning of the choice species and the production and availability of forage species of fish should be satisfactory. It is believed that the reservoir releases downstream from

the dam will cause a change from warm water fishery to a suitable cold-water, or trout, fishery. It is also believed that the change from warm-water to cold-water fishery below the dam and from stream fishery to lake fishery in the reservoir area will more than compensate for any losses in existing fishery.

(2) The Summersville Reservoir will cause damage to the wildlife habitat of the area. Inundation of 2500 acres by the seasonal pool and the deterioration of an additional 730 acres (up to the 5-year frequency) flooded intermittently will cause the loss of recreational use for hunting to the extent of 1150 days annually, averaged over the life of the project. Reduction of hunter expenditures, based on present prices, will amount to $5600 annually and additional losses of recreational use by those interested in nature study, bird watching and other pursuits dependent on wildlife resources will amount to $1600 annually, averaged over the life of the project. These losses can be mitigated by fee simple acquisition of 1095 acres of land on Long Point and subsequent management and development by the West Virginia Conservation Commission. Fee acquisition of the area, and management and development by the W. Va. Conservation Commission at an annual expenditure of $5,000, would result in hunter recreation benefits of $7,500 annually and in non-hunting recreational and educational activity benefits of $9,000 annually. The U. S. Fish and Wildlife Service recommends the purchase of the 1095 acres on Long Point as mitigation for wildlife losses to be incurred as a result of project construction and to make these lands, together with other Federally-owned lands and water areas, except for such portions as may be reserved for reasons of safety, efficient project operation and protection of public property, available to the W. Va. Conservation Commission for fish and wildlife management under provisions of a General Plan as authorized by the Fish and Wildlife Coordination Act (48 Stat. 401, as amended, 16 U.S.C. 661 et. seq.).

c. West Virginia Department of Health. The West Virginia Department of Health was contacted during the preparation of the general design memorandum relative to the measures desirable to effectively control mosquitoes. The Department of Health recommended clearing of all timber and brush up to three feet above permanent pool elevation, removal of all floatable material and drainage for any pools or depressions in the zone of fluctuation of water level. It recommended the filling of the reservoir during the fall, winter or spring months and the location of any recreational facilities away from potential mosquito breeding areas. It also recommended the use of insecticides after establishment of the pool. A copy of the letter report prepared by that department is included in appendix II.

5. COMMENTS ON RECOMMENDATIONS OF U. S. FISH AND WILDLIFE SERVICE.

The U. S. Fish and Wildlife Service recommends the purchase of the 1095 acres of land on the Long Point peninsula as mitigation for wildlife losses to be incurred as a result of the project construction and to make these lands, together with other Federally-owned lands and water areas (except for such portions as may be reserved for reasons of safety, efficient project operation and protection of public property), available to the W. Va. Conservation Commission for fish and wildlife management under provisions of a General Plan as authorized by the Fish and Wildlife Coordination Act. No lands were included for fish and wildlife purposes in the authorization for the Summersville Reservoir Project. Therefore, the purchase of the Long Point area is not within the authority of the Corps of Engineers for this project since Section 3(c) of the Fish and Wildlife Coordination Act provides that no lands on a previously authorized project can be acquired for fish and wildlife purposes unless authorization is obtained from Congress.

The need for mitigation of project-occasioned wildlife losses and the benefits of enhancement of wildlife habitat in the reservoir area appears to be justified in the report made by the U. S. Fish and Wildlife Service. Therefore, the procedures outlined in EM 1165-2-104 will be considered in order to acquire the lands in the Long Point area for fish and wildlife purposes.

6. PROPOSED PLAN OF DEVELOPMENT

In planning for use of project lands and waters for recreation, consideration was given to types of developments provided and the use made of public lands at other reservoirs and at State parks and forests in West Virginia. The recent increase in water sports, such as boating, water skiing and swimming, on the nation's waterways and lakes indicates the need for more areas providing room for such sports. Fishing has always been a major out-of-door recreation in West Virginia and has tended to increase over the past few years. The popularity of the nearby Carnifex Ferry Battlefield State Park for week-end day use as a playground and picnic area indicates a need for and a heavy usage of that type of development.

Six sites have been selected for development to provide for various day-use activities, camping and water sport. However, two of the sites, one an overlook area at the dam and the other an overlook-roadside park area at the bridge on relocated U. S. 19, will be developed in separate design memoranda. The two sites are described herein, but cost estimates are not included in this Preliminary Master Plan. Subject to review in the design memorandum on relocation and abandonment of roads, two sites in addition to the six primary sites

have been designated as public launching ramps and are located where improved roads enter the seasonal pool. These public launching ramps require no major development. The general plan of development is shown on exhibit No. 3 and the sites are shown on exhibit No. 4, A through E. Detailed preliminary cost estimates are included as appendix I. The cost estimates are based on initial development; that is, the development necessary to meet the requirements of the first three years of operation. Future costs, or costs for further development after the first three years, have not been estimated since any further development will depend upon public demand and it is believed that future public demand cannot be estimated with sufficient accuracy to allow for reasonable or dependable cost estimates. The estimates for the developments to be furnished by the State are only tentative and preliminary in that plans by the State have not been formulated as yet.

The general plan of development is shown on exhibit No. 3 and a brief description of each site follows:

(1) Overlook Area. This site, located just east of the east abutment of the dam, should be developed as a parking and overlook area only. The area consists of about 5 acres of rolling to level plateau at a general elevation of 1750 and includes the total area suitable for such development, precluding later expansion for picnicking or other activities at this point. A parking area for approximately 25 cars and an overlook are to be provided. The overlook will provide a view of the outlet works and the river gorge downstream from the dam and a view of the lake upstream from the dam. Access will be provided by the main access road to and across the dam. No acquisition, other than that proposed for fee purchase for construction purposes, is necessary. This site will be planned and developed in a separate design memorandum covering the construction of the dam. No attempt has been made to estimate the cost of development.

(2) Dam Site Park. This site is located just west of the dam, between the dam and the spillway. The area consists of rolling land, partly wooded, at a general elevation of 1750. Development by the Federal Government at this site would be (1) a parking area for 50 cars, (2) sanitary and water facilities, and (3) an overlook. The parking area would be black-top. Water may be furnished the site by either drilled wells or from the water system at the dam. Sanitary facilities would consist of flush type toilets with septic tank and field. An overlook structure, providing a view of the dam and outlet works and a scenic view of the river gorge, would be constructed. Development by the State of West Virginia, through its Department of Conservation, should include picnic facilities, such as tables, ovens and trash receptacles. Approximately 12 acres are proposed for public use development but since the area under consideration is proposed for acquisition for construction of the dam and spillway, no additional lands are required. The site is shown on exhibit No. 4A.

ESTIMATE OF COST

Real estate acquisition	None	
Initial construction, Federal	$27,000	
Initial construction, State	2,700	
Total construction		$29,700
Operation and maintenance		500

(3) Battle Run Launching Area. Located east of dike No. 1, this site provides the only access to the seasonal pool of the Battle Run arm of the reservoir. The area is a small peninsula with rolling topography and light tree cover. The Battle Run arm of the reservoir is proposed for use by non-powered pleasure craft only since the location of the intake structure at the mouth of Battle Run will prohibit boat traffic between the main reservoir and the Battle Run section. This arm of the reservoir would then be used mostly by fishermen, swimmers, picnickers and, possibly, campers. The launching area consists of 56 acres above seasonal pool and is suitable for development as a launching site, picnicking area and a swimming area. A blacktop access road leading from the main access to the dam will cross over one end of dike No. 1 and down to the area. The Federal Government would provide the access road, a blacktop parking area, concrete launching ramp and water and sanitation facilities. The water facilities would consist of a drilled well and pump. The sanitary facilities would be of the concrete vault pit-type set at the ten-year filling frequency elevation. Development by the State should include picnic facilities and a bathing beach. No additional land other than that proposed for purchase for reservoir purposes is required. The estimated cost for development is shown below. The site is shown on exhibit No. 4B.

ESTIMATE OF COST

Real estate acquisition	None	
Initial construction, Federal	$78,000	
Initial construction, State	7,300	
Total, construction		$85,300
Operation and maintenance		$ 850

(4) McKee Creek. This site is located on the west side of the Long Point peninsula formed by the seasonal pool and lies on both sides of the abandoned section of State Route 9 where it enters the seasonal pool. It is the only access point to the McKee Creek arm of the reservoir and, as such, enough area should be acquired to provide adequate access to the reservoir. It is proposed to develop a site containing 78 acres above the seasonal pool, of which 62 acres are above the fee taking line and 17 acres are above the easement taking line. Additional real estate acquisition is estimated to cost approximately $3,200. The site is of rolling to rugged terrain with about one-fourth of the acreage devoted to agriculture and the remaining three-fourths being woodland. The tree cover forms a belt around the conservation pool. Development by the Federal Government would consist of a launching ramp, parking areas, access road and water and sanitation facilities. The parking areas and access road would be blacktop, while the launching ramp would be of concrete. Drilled wells would furnish the water supply and the sanitation facilities would consist of two restrooms of the concrete vault pit-type set at an elevation equal to the 10-year frequency of filling at the launching site and at an elevation above the flood control pool at the access and recreation area. The State agencies should furnish picnic facilities such as tables, ovens and trash receptacles. Provision would be made for a boat dock and concession owned and operated by a licensed concessionaire. However, due to drawdown for the winter pool, the dock concessionaire would be limited to operation from the time the reservoir is filled to elevation 1575, sometime in April or May, to about 15 October of each year, when major drawdown would generally take place. The estimated cost for acquiring and developing the site follows. The site is shown on exhibit No. 4E.

ESTIMATE OF COST

Real estate acquisition		$ 3,200
Initial construction, Federal	$110,500	
Initial construction, State	5,500	
Total, construction		$116,000
Operation and maintenance		$ 1,200

(5) Salmon Run. This area will be served by the abandoned section of U. S. Route 19 north of the reservoir area, the abandonment of which will be covered in a separate design memorandum on road relocations. The site will afford excellent opportunity for such day-use activities as boating, picnicking and related recreation uses. It is located on Salmon Run just two miles south of the town of Summersville and off the relocated U. S. Route 19. Heavy usage is expected. The area consists of 83 acres above seasonal pool, 26 acres of which are above the maximum flood control pool. Additional real estate acquisition, assuming that the entire Long Point peninsula is not acquired for reservoir purposes, would consist of approximately 56 acres, 36 of which would be between elevations 1671 and 1715 and over which flooding easements would normally be purchased. The real estate acquisition costs are estimated to be $4,600. Development will necessitate the relocation or raising in place of about 1500 feet of the abandoned section of U. S. 19 and the provision of an access road to a picnic area. Improvements by the Federal Government would consist of a launching ramp, parking areas, sanitary and water facilities. The parking areas are to be blacktop surfaced and the launching ramp will be of reinforced concrete. Water can be supplied by drilled wells. The sanitary facilities would be flush type toilets with septic tank and dispersal field. Development by the State should include picnic facilities including tables, ovens and trash receptacles. Provision would be made for the licensing of a concessionaire for a boat dock and concession stand. A cost estimate in summary is shown below and in detail in appendix I. The site is shown on exhibit No. 4C.

ESTIMATE OF COST

Real estate acquisition		$ 4,600
Initial construction, Federal	$156,500	
Initial construction, State	5,500	
Total, construction		$162,000
Operation and maintenance		$ 1,600

(6) U. S. 19 Vista and Roadside Park. The site located at the north end of the relocated bridge across Gauley River on U. S. 19 will include a parking area, an overlook and picnic area in the roadside park and a sidewalk on the bridge for sightseeing. The development of the site is covered in Design Memorandum No. 7 as part of the relocation of U. S. 19. U. S. 19 is a relatively heavily traveled north-south route running from the Great Lakes to St. Petersburg, Florida, and will cross the reservoir by bridge approximately 200 feet above the seasonal pool. A spectacular view of the deep gorge enclosing the waters of the reservoir will be had from the bridge. Many travelers enjoy the breaking of the monotony of a long trip by a brief pause at a roadside park, especially where the beauties of nature can be viewed leisurely, as at this site. The site is shown on exhibit No. 4D.

(7) Boat launching sites. Although subject to review in a design memorandum covering the relocation of roads, it is proposed to make available to the public all sections of abandoned roads and highways that enter the seasonal pool. These sites will be utilized for launching pleasure boats. Parking facilities at these sites will be at a minimum, but the shoulders of all the roads provide single lane parking within walking distance of the water. Two sites suitable for launching power craft are (1) the abandoned section of U. S. Route 19 where it enters the pool from the south, and (2) the section of State Route 39 where it enters the pool from the west near the head of the seasonal pool.

7. RESTRICTIONS TO RECREATION USE

a. Because of the location of the intake through the right abutment of the dam and across the mouth of Battle Run, it is proposed to prohibit boat traffic from the main reservoir area to the Battle Run arm of the seasonal pool. The area just upstream from the dam will also be a restricted area. The use of the Battle Run arm of the reservoir will then be restricted to use by oared craft and such activities as fishing and swimming.

b. Filling for the seasonal pool will begin on 1 April of each year and be completed by approximately 1 June. Drawdown can be expected to some extent from 1 June through 1 October, at which time the drawdown to winter conservation pool is started. The differential between summer and winter pools is 130 feet. For this reason, and because no sites exist where docks could be raised and lowered easily, it is believed that all pleasure craft should be removed from permanent berthing in the reservoir by 15 October of each year and allowed to

return at such time in April or May that the seasonal pool has reached elevation 1575. Permanent boat docks operated by concessionaires should be beached at approximate elevation 1575 and secured for the winter season in such a manner that they would not be damaged or would not cause a safety hazard by floating free, should that elevation be reached due to flood-control storage.

8. RECOMMENDATIONS

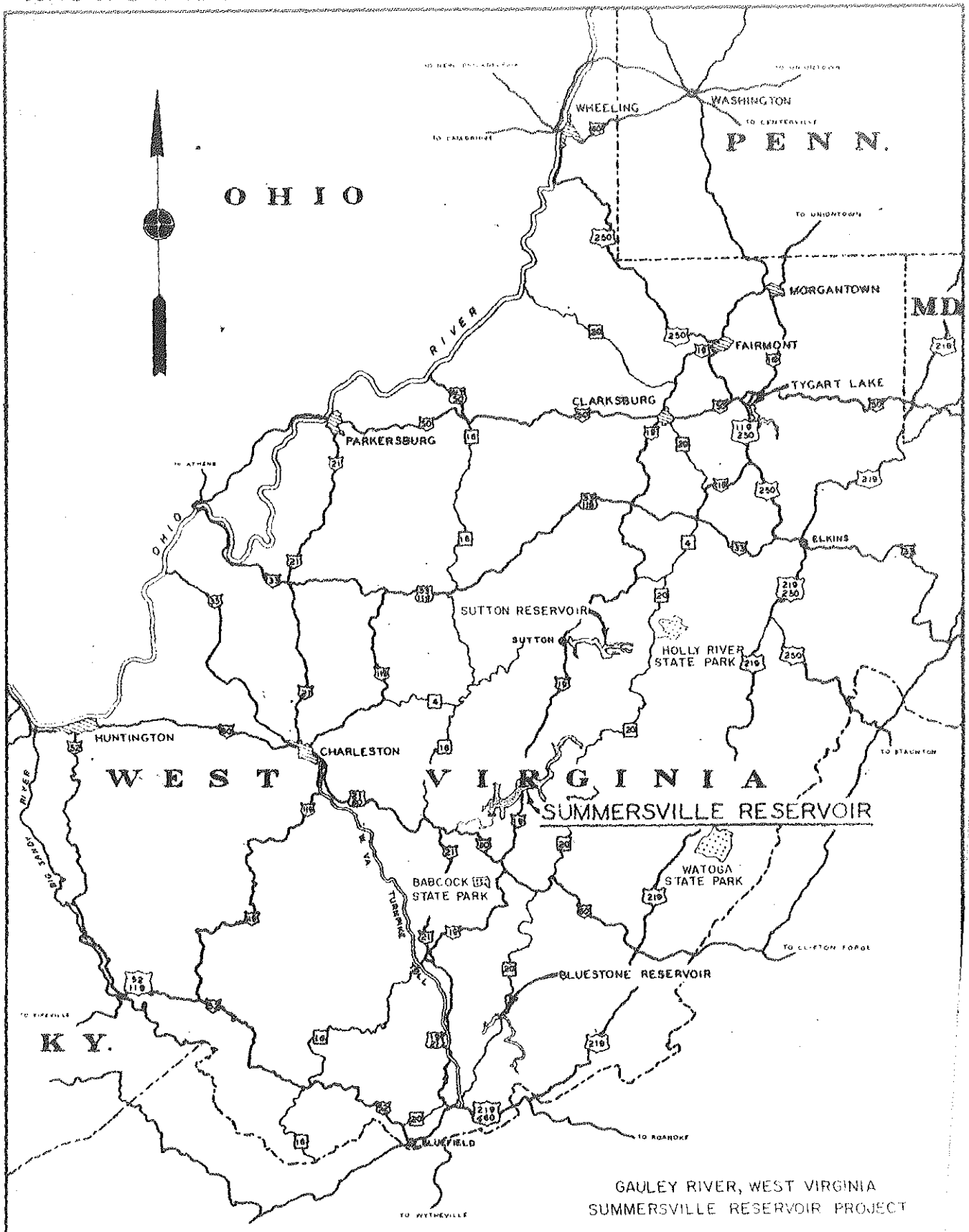
It is recommended that:

a. The four sites selected for development and utilization as public use areas be approved and that those areas be purchased or set aside for that purpose. Two of the sites, Battle Run and the Dam Site Park, are within the proposed fee taking line for reservoir purposes. Real estate acquisition of fee title to the McKee Creek and Salmon Run sites is estimated at $7,800. Federal development of these four areas, subject to review in the final Master Plan, is estimated to be $372,000.

b. The site at the dam selected as an overlook area and the site described herein as the U. S. 19 Roadside Park and Vista be approved as public recreational areas and that the design and cost estimates therefor be developed in separate design memoranda.

STEVEN MALEVICH
Colonel, Corps of Engineers
District Engineer

CORPS OF ENGINEERS U.S. ARMY



GAULEY RIVER, WEST VIRGINIA
SUMMERSVILLE RESERVOIR PROJECT

LOCATION MAP

10 0 10 20

SCALE IN MILES

U.S. ARMY ENGINEER DISTRICT, HUNTINGTON
CORPS OF ENGINEERS
HUNTINGTON, W. VA AUGUST 1959

EXHIBIT NO.

F/C 41

SUMMERSVILLE RESERVOIR PROJECT, W. VA.

Condition of Improvement, 30 June 1959

Location of Dam: Nicholas County, W. Va., on Gauley River, a tributary of Kanawha River; 131.5 miles above the mouth of Kanawha River.

Authority: Flood Control Act of 28 June 1938, Public No. 761, Seventy-fifth Congress, 3rd Session.

Dam: Type - rock fill with central impervious core, maximum height 357 feet, top length 2,150 feet, top width 40 feet, base width 1,400 ± feet.

Spillway: Uncontrolled saddle spillway 3,500 feet west of right abutment, crest elevation 1710, length of crest 1,250 feet, design discharge 412,000 c.f.s. with surcharge of 23 feet and freeboard of 5 feet.

Outlet Works: Sloping 29-foot diameter intake tunnel discharging into 29-foot operating tunnel through right abutment. Operating tunnel formed by plugging intake of diversion tunnel after construction. Outlet structure, three pipes with 9'-0" diameter Howell-Bunger valves, one 30-inch diameter valve-controlled sluice for low-flow control, all discharging into stilling pool. Three 11-foot and one 3-foot diameter butterfly valves permit emergency closure of discharge pipes. Two service gates for intake permit dewatering outlet tunnel.

Other Structures: Two dikes on west rim of reservoir, as follows:

Dike No. 1 - 1 mile west of dam, random fill with central impervious core, length 2,125', maximum height 90', top width 40', maximum base width 480'.

Dike No. 2 - 1 mile northwest of dam, random fill with central impervious core, length 3,320', maximum height 112', top width 40', maximum base width 580'.

Relocations: 4.4 miles of U. S. 19, 1.7 miles of state highway, 2.2 miles of access road, 2 highway bridges, 4.5 miles of power lines, 13.5 miles of telephone lines, and removal of 6 cemeteries of about 300 graves.

Drainage Area Above Dam: 803 square miles.

Maximum Flow of Record at Dam Site: 82,000 c.f.s. (July 1932)

Reservoir Design Flood Peak Flow: 128,000 c.f.s.

Reservoir:

Pool	Surface Elevation	Capacity Acre-Ft.	Capacity Inches	Area (Acres)	Backwater (main stream) (miles)
Conservation	1520	23,000	0.5	407	4.5
Low Flow Augmentation, Summer	1650	163,400	3.8	2,723	13.7
Flood Control, Summer	1710	227,400	5.3	4,920	18.6
Flood Control, Winter	1710	390,800	9.1	4,920	18.6
Total Storage	1710	413,800	9.7	4,920	18.6

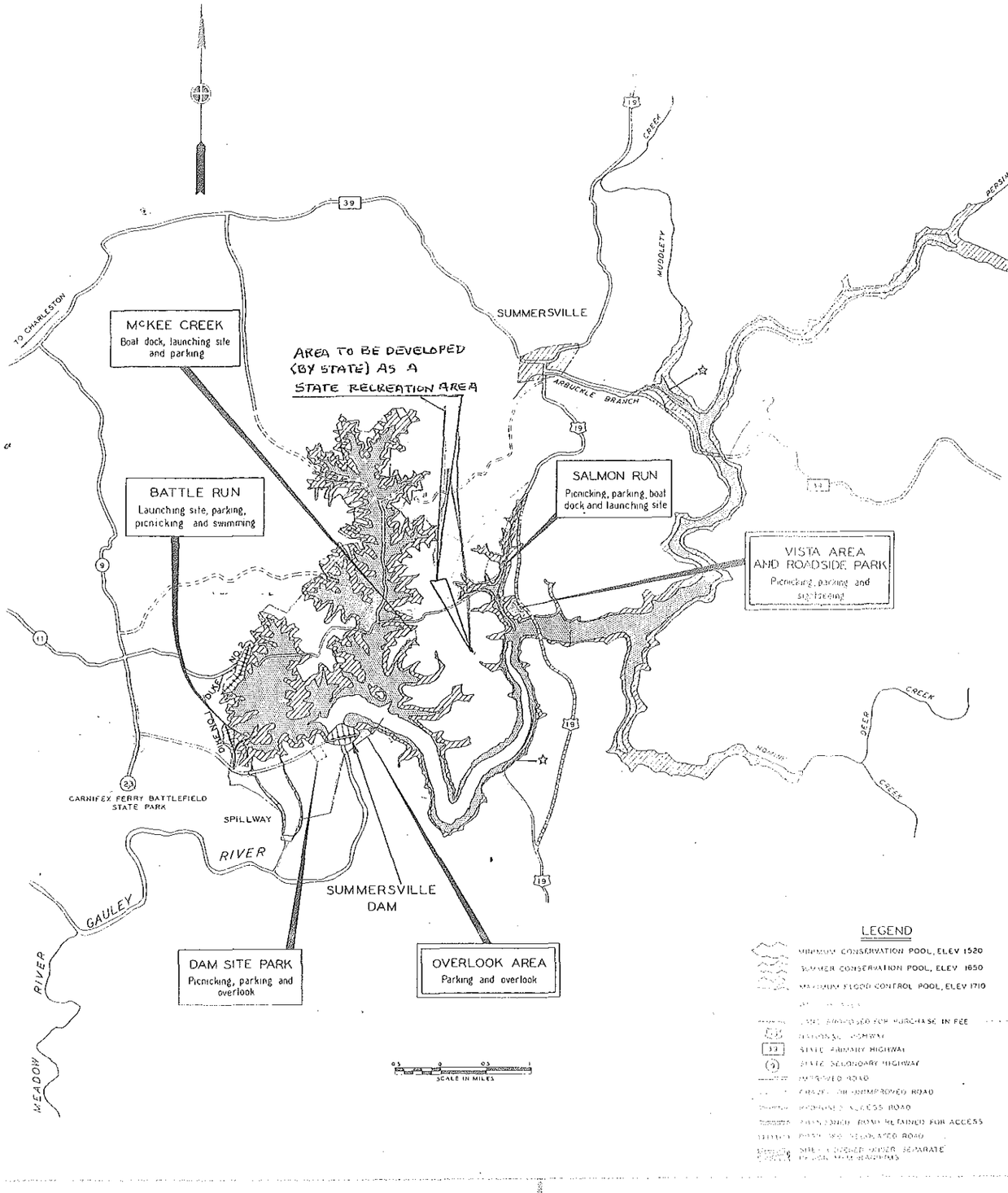
Costs: (New Work)

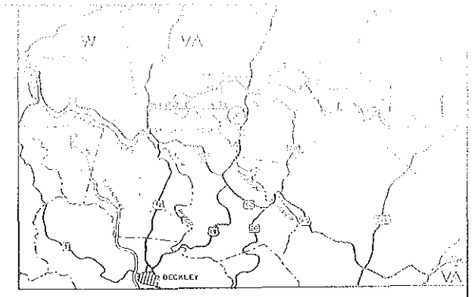
Total, estimated (30 June 1959)	$50,800,000
Costs to date	570,880
Balance to complete	$50,229,120

Net Allotments to Date: (New Work) $ 684,570

Status: General Design Memo and some detailed design memos complete. Plans and specifications for Access Road and Outlet Works being prepared. No construction work has been started.

EXHIBIT NO. 2





VICINITY MAP

SCALE IN MILES

DESCRIPTION OF PUBLIC USE AREAS

DAM SITE PARK
Acreage above –
- Flood-control pool 12
- Flowage easement guide contour 12

Description of tree cover: partial
Terrain: rolling
Elevation of useable land above flood pool: 1720-1770
Vicinity: west of dam

BATTLE RUN
Acreage above –
- Minimum pool 99
- Five-year flood frequency pool: 23
- Flood-control pool 12
- Flowage easement guide contour: 11
- Normal recreation pool: 56

Description of tree cover: partial
Terrain: rolling
Elevation of useable land above flood pool: 1710-1725
Vicinity: east of dike No 1

McKEE CREEK
Acreage above –
- Minimum pool 137
- Five-year flood frequency pool 62
- Flood-control pool 22
- Flowage easement guide contour 17
- Normal recreation pool 78

Description of tree cover: partial to medium
Terrain: rolling to rugged
Elevation of useable land above flood pool: 1710-1745
Vicinity: Gad

SALMON RUN
Acreage above –
- Minimum pool 83
- Five-year flood frequency pool 56
- Flood-control pool 25
- Flowage easement guide contour 20
- Normal recreation pool 83

Description of tree cover: partial
Terrain: rolling to rugged
Elevation of useable land above flood pool: 1710-1775 +
Vicinity: Salmon Run

☆ Abandoned roads retained for launching sites
No parking areas provided.

LEGEND
- MINIMUM CONSERVATION POOL, ELEV 1520
- SUMMER CONSERVATION POOL, ELEV 1650
- MAXIMUM FLOOD CONTROL POOL, ELEV 1710
- LAND ENVISIONED FOR PURCHASE IN FEE
- FEDERAL HIGHWAY
- STATE PRIMARY HIGHWAY
- STATE SECONDARY HIGHWAY
- IMPROVED ROAD
- FAIR TO UNIMPROVED ROAD
- PROPOSED ACCESS ROAD
- ABANDONED ROAD RETAINED FOR ACCESS
- ABANDONED ROAD
- STREAM CROSSED ACROSS SEPARATE BRIDGES FROM HIGHWAYS

NOTE
MINIMUM FEE TAKING LINE IS ELEVATION 1671, FIVE-YEAR FLOOD FREQUENCY. ADDITIONAL FEE LANDS WILL BE ACQUIRED DUE TO LOSS OF ACCESS AND WHERE IT IS TO THE FINANCIAL ADVANTAGE OF THE GOVERNMENT

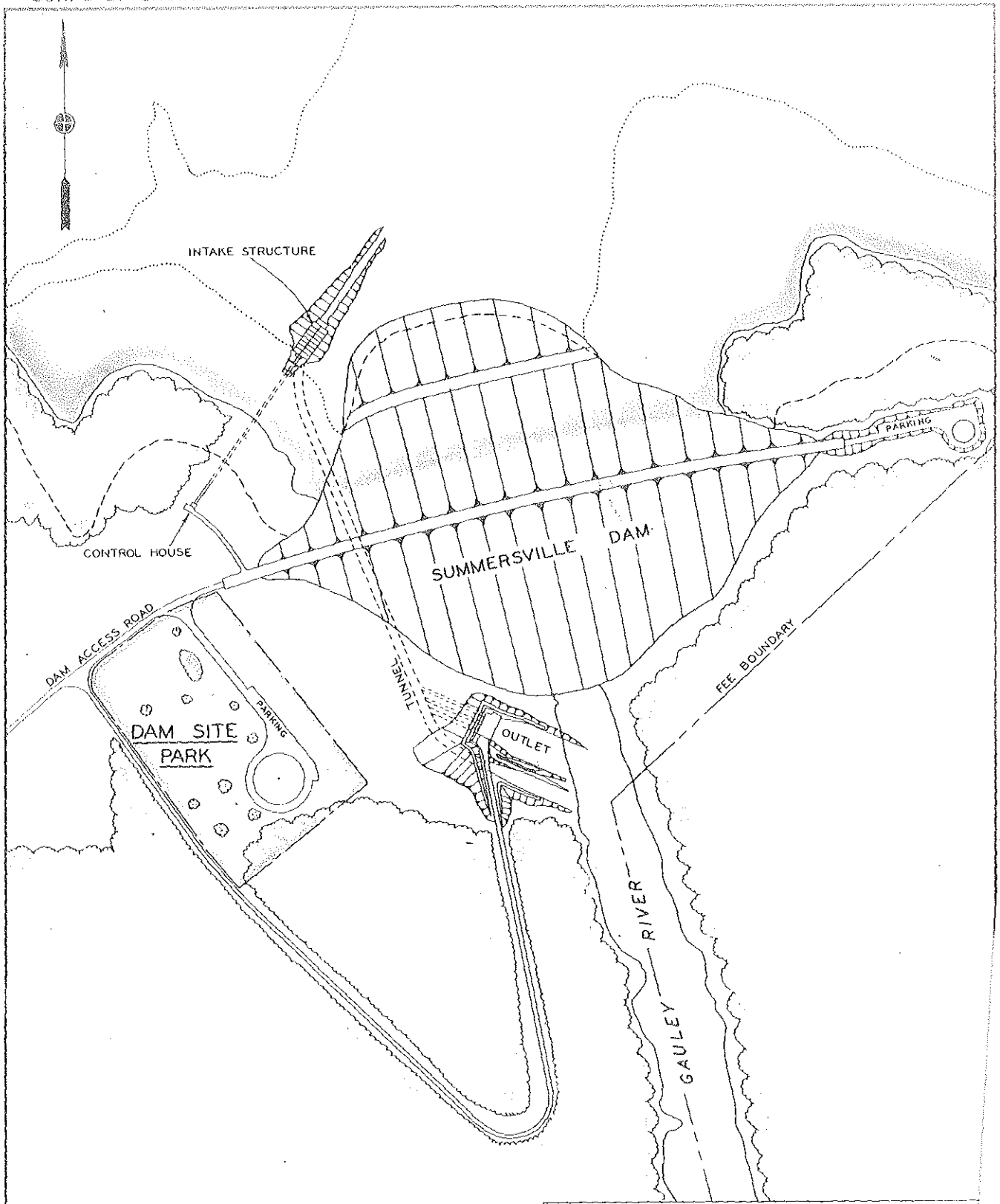
U.S. ARMY ENGINEER DISTRICT, HUNTINGTON
CORPS OF ENGINEERS
HUNTINGTON, W VA

DRAWN BY J.L.L.
TRACED BY J.L.L.
CHECKED BY H.M.B.
SUBMITTED BY
CHIEF, PLANNING BRANCH
RECOMMENDED
CHIEF, ENGINEERING DIVISION
APPROVED
CHIEF, ENGINEERING DIVISION
APPROVED
Steven Malenick
COL., C.E. DISTRICT ENGINEER

GAULEY RIVER, WEST VIRGINIA
SUMMERSVILLE RESERVOIR PROJECT
PRELIMINARY MASTER PLAN
RECREATION DEVELOPMENT

SCALE AS SHOWN
DATE

EXHIBIT NO 3



LEGEND

- EXISTING ROAD
- MINIMUM CONSERVATION POOL, ELEV. 1520
- SUMMER CONSERVATION POOL, ELEV. 1650
- MAXIMUM FLOOD CONTROL POOL, ELEV. 1710
- SITE BOUNDARY
- WOODED AREA

250 0 250 500

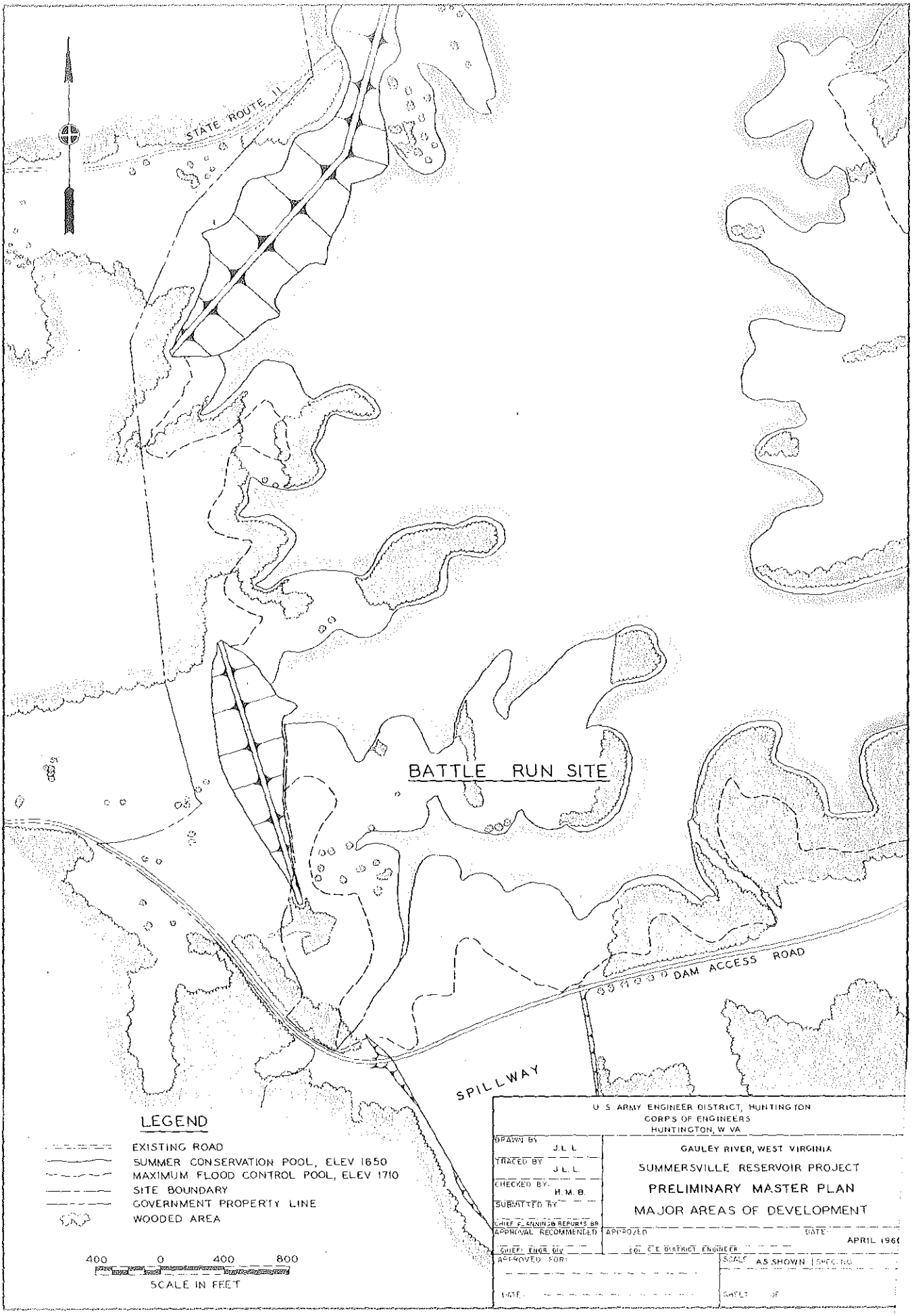
SCALE IN FEET

U. S. ARMY ENGINEER DISTRICT, HUNTINGTON
CORPS OF ENGINEERS
HUNTINGTON, W. VA.

DRAWN BY J.L.L.	GAULEY RIVER, WEST VIRGINIA
TRACED BY J.L.L.	SUMMERSVILLE RESERVOIR PROJECT
CHECKED BY H.M.B.	PRELIMINARY MASTER PLAN
SUBMITTED BY	MAJOR AREAS OF DEVELOPMENT
CHIEF, PLANNING & REPORTS BR.	
APPROVAL RECOMMENDED	APPROVED DATE APRIL 1
CHIEF, ENGR. DIV.	COL. C.E. DISTRICT ENGINEER
APPROVED FOR	SCALE AS SHOWN SPEC. NO.
DATE	SHEET 1 OF 4

EXHIBIT NO. 4

CORPS OF ENGINEERS U.S. ARMY



U. S. ARMY ENGINEER DISTRICT, HUNTINGTON
CORPS OF ENGINEERS
HUNTINGTON, W. VA.

DRAWN BY: J.L.L.
TRACED BY: J.L.L.
CHECKED BY: H.M.B.
SUBMITTED BY:
CHIEF, PLANNING REPORTS BR.
APPROVAL RECOMMENDED: APPROVED: DATE: APRIL 1961
CHIEF, ENGR. DIV. COL. C.E. DISTRICT ENGINEER
APPROVED FOR:
DATE:

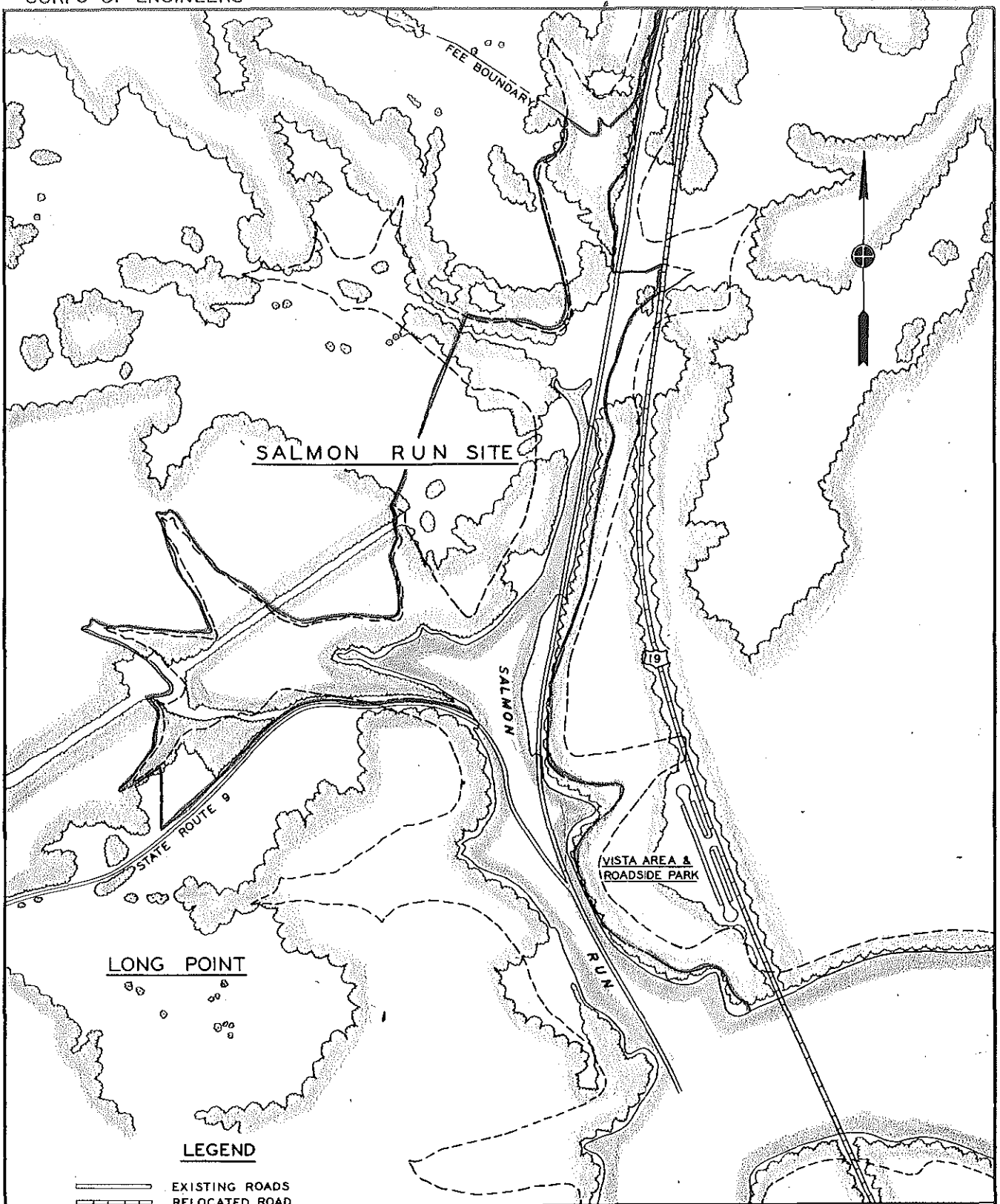
GAULEY RIVER, WEST VIRGINIA
SUMMERSVILLE RESERVOIR PROJECT
PRELIMINARY MASTER PLAN
MAJOR AREAS OF DEVELOPMENT

SCALE: AS SHOWN | SHEET NO.
SHEET OF

EXHIBIT NO. 4B

CORPS OF ENGINEERS

U. S. ARMY



LEGEND

- EXISTING ROADS
- RELOCATED ROAD
- GOVERNMENT PROPERTY IN FEE
- SUMMER CONSERVATION POOL, ELEV. 1650
- MAXIMUM FLOOD CONTROL POOL, ELEV. 1710
- SITE BOUNDARY
- WOODED AREA

400 0 400 800

SCALE IN FEET

U. S. ARMY ENGINEER DISTRICT, HUNTINGTON
CORPS OF ENGINEERS
HUNTINGTON, W. VA.

DRAWN BY: J.L.L.
TRACED BY: J.L.L.
CHECKED BY: H.M.B.
SUBMITTED BY:
CHIEF, PLANNING & REPORTS BR.
APPROVAL RECOMMENDED:
CHIEF, ENGR. DIV.

GAULEY RIVER, WEST VIRGINIA
SUMMERSVILLE RESERVOIR PROJECT
PRELIMINARY MASTER PLAN
MAJOR AREAS OF DEVELOPMENT

APPROVED:
COL. C. E. DISTRICT ENGINEER
DATE: APRIL 1960

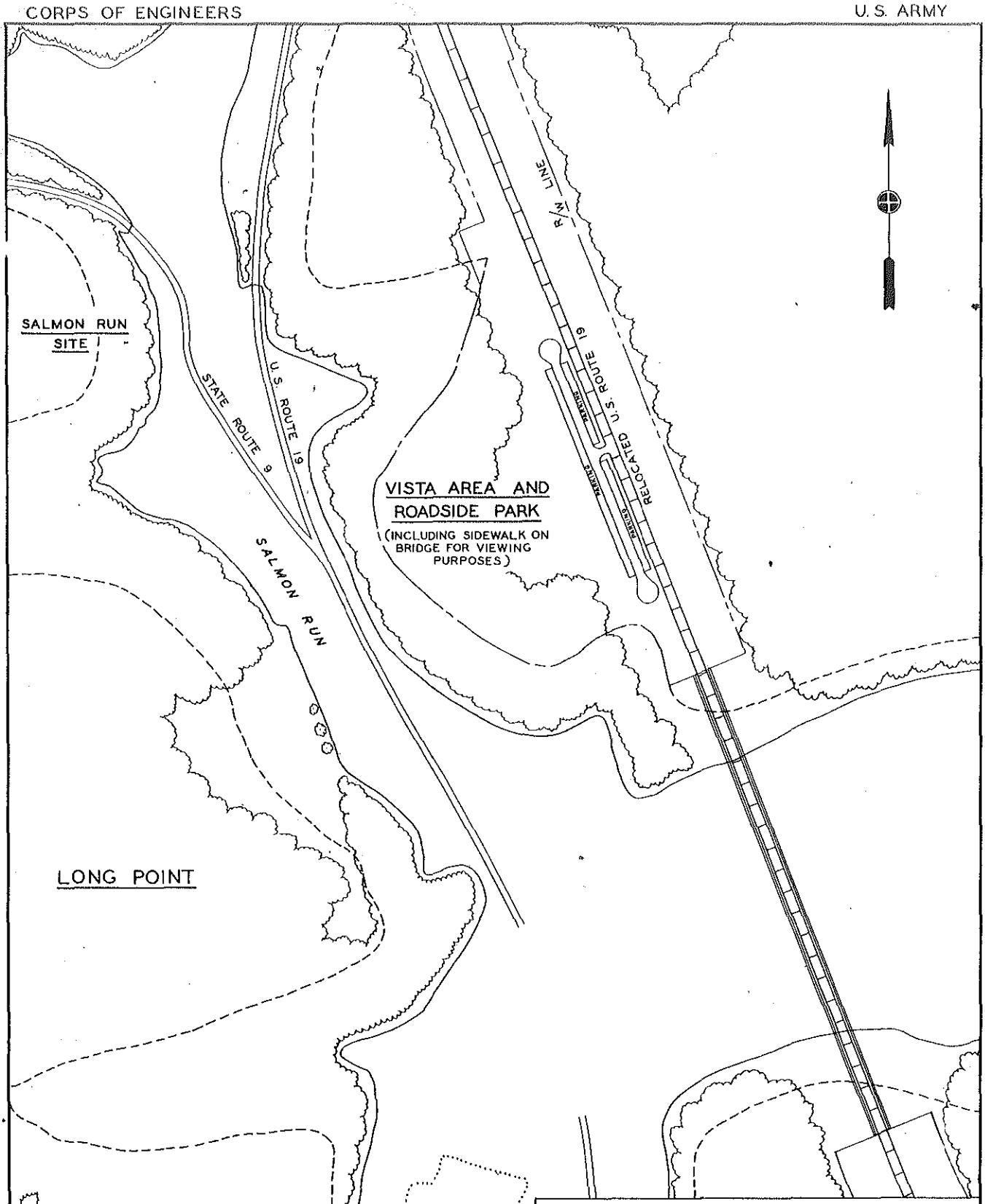
APPROVED FOR:
DATE:

SCALE: AS SHOWN
SPEC. NO.

SHEET 3 OF 4

EXHIBIT NO. 4C

CORPS OF ENGINEERS U.S. ARMY



U. S. ARMY ENGINEER DISTRICT, HUNTINGTON
CORPS OF ENGINEERS
HUNTINGTON, W. VA.

DRAWN BY: J.L.L.	GAULEY RIVER, WEST VIRGINIA
TRACED BY: J.L.L.	SUMMERSVILLE RESERVOIR PROJECT
CHECKED BY: H.M.B.	**PRELIMINARY MASTER PLAN**
SUBMITTED BY:	MAJOR AREAS OF DEVELOPMENT
CHIEF, PLANNING & REPORTS BR.	
APPROVAL RECOMMENDED:	APPROVED: DATE: APRIL 1960
CHIEF, ENGR. DIV.	COL. C.E. DISTRICT ENGINEER
APPROVED FOR:	SCALE: AS SHOWN SPEC. NO.
DATE:	SHEET 4 OF 4

EXHIBIT NO. 4D

CORPS OF ENGINEERS U S ARMY

LEGEND

- EXISTING ROAD
- MINIMUM CONSERVATION POOL, ELEV 1520
- SUMMER CONSERVATION POOL, ELEV 1650
- MAXIMUM FLOOD CONTROL POOL, ELEV. 1710
- SITE BOUNDARY
- PROPOSED GOVERNMENT PROPERTY IN FEE
- WOODED AREA

400 0 400 800
SCALE IN FEET

U. S. ARMY ENGINEER DISTRICT, HUNTINGTON
CORPS OF ENGINEERS
HUNTINGTON, W. VA

DRAWN BY J. L. L.	GAULEY RIVER, WEST VIRGINIA
TRACED BY J. L. L.	SUMMERSVILLE RESERVOIR PROJECT
CHECKED BY H. M. B.	PRELIMINARY MASTER PLAN
SUBMITTED BY	MAJOR AREAS OF DEVELOPMENT
CHIEF, ENGINEERING DIVISION	APPROVAL RECOMMENDED / APPROVED / DATE: APRIL 1960
CHIEF, ENGINEERING DIVISION	FOR: U.S. DISTRICT ENGINEER
APPROVED FOR	SCALE: AS SHOWN / SPEC. NO.
DATE	SHEET OF

EXHIBIT NO. 4E

DESIGN MEMORANDUM NO. 10A
PRELIMINARY MASTER PLAN
A PART OF THE MASTER PLAN
FOR
SUMMERSVILLE RESERVOIR
GAULEY RIVER
WEST VIRGINIA

APPENDIX I
DETAILED COST ESTIMATES

U. S. ARMY ENGINEER DISTRICT, HUNTINGTON
CORPS OF ENGINEERS
HUNTINGTON, WEST VIRGINIA

JUNE 1960

DESIGN MEMORANDUM NO. 10A
PRELIMINARY MASTER PLAN
SUMMERSVILLE RESERVOIR, WEST VIRGINIA
PRELIMINARY COST ESTIMATES
SUMMARY

SITE DEVELOPMENT

		Federal	Non-Federal	Total
1.	Dam Site Park	$ 27,000	$ 2,700	$ 29,700
2.	Battle Run	78,000	7,300	85,300
3.	McKee Creek	110,500	5,500	116,000
4.	Salmon Run	156,500	5,500	162,000
		$372,000	$21,000	$393,000

REAL ESTATE COSTS - FEDERAL

1.	Dam Site Park	None
2.	Battle Run	None
3.	McKee Creek	$ 3,200
4.	Salmon Run	4,600
		$ 7,800

TOTAL FEDERAL COST ~~$400,800~~ 379,800

DESIGN MEMORANDUM NO. 10A
PRELIMINARY MASTER PLAN
SUMMERSVILLE RESERVOIR, WEST VIRGINIA
PUBLIC-USE DEVELOPMENTS

PRELIMINARY COST ESTIMATES

INITIAL CONSTRUCTION

Item	Unit	Quantity	Unit price	Cost
1. DAM SITE PARK				
Federal				
Subgrade preparation	S.Y.	1870	$ 0.50	$ 935
Parking area (50 cars)	S.Y.	1670	4.00	6,680
Parking blocks	Ea.	50	15.00	750
Sanitary facilities	L.S.	1	10,200.00	10,200
Water facilities	L.S.	1	3,000.00	3,000
Overlook (separate design memo. Acct. No. 19)				
				$21,565
	Contingencies			3,235
	E&D, S&A			2,200
	Total, Federal			$27,000
State				
Picnic area: tables	Ea.	25	75.00	1,875
ovens	Ea.	8	50.00	400
trash cans	Ea.	10	5.00	50
				2,325
	Contingencies			375
	Total, State			$ 2,700
	Total cost, Dam Site Park			$29,700

Item	Unit	Quantity	Unit price	Cost
2. BATTLE RUN				
Federal				
Access road:				
Excavation	C.Y.	2980	$ 0.75	$2,235
Fill	C.Y.	2500	0.25	625
Subgrade preparation	S.Y.	5800	0.50	2,900
Paving, blacktop	S.Y.	5195	4.10	21,300
Parking area:				$ 27,060
Subgrade preparation	S.Y.	2700	0.50	1,350
Paving, blacktop	S.Y.	2275	4.00	9,100
Parking blocks	Ea.	50	15.00	750
				$ 11,200
Launching ramp:				
Excavation	C.Y.	400	0.75	300
Subgrade preparation	S.Y.	1700	0.50	850
Paving, concrete	S.Y.	1700	7.50	12,750
Curb, concrete	L.F.	600	2.80	1,680
				$ 15,580
Sanitary facilities				$ 5,500
Water facilities				3,000
				$ 62,340
		Contingencies		9,430
		E & D, S & A		6,230
		Total, Federal		$ 78,000
State				
Picnic area: tables	Ea.	25	75.00	$1,875
ovens	Ea.	8	50.00	400
trash cans	Ea.	10	5.00	50
				$ 2,325
Bathing beach	L.S.			4,000
				$ 6,325
		Contingencies		975
		Total, State		$ 7,300
		TOTAL, BATTLE RUN		$ 85,300

Item	Unit	Quantity	Unit price	Cost
3. McKEE CREEK				
Federal				
Access roads:				
Excavation, borrow	C.Y.	4330	0.75	$ 3,250
Fill	C.Y.	5200	0.25	1,300
Subgrade preparation	S.Y.	5780	0.50	2,890
Paving, blacktop	S.Y.	5776	4.10	23,675
				$ 31,115
Parking areas:				
Subgrade preparation	S.Y.	3380	0.50	1,690
Paving, blacktop	S.Y.	3380	4.00	13,520
Parking blocks	Ea.	90	15.00	1,350
				$ 16,560
Launching ramp				
Excavation	C.Y.	4990	0.75	3,740
Subgrade preparation	S.Y.	2220	0.50	1,110
Paving, concrete	S.Y.	2220	7.50	16,650
Curb, concrete	L.F.	1160	2.80	3,250
				$ 24,750
Sanitary facilities				11,000
Water facilities				5,000
				$ 88,425
	Contingencies			13,235
	E & D, S & A			8,840
	Total, Federal			$110,500
State				
Picnic areas: tables	Ea.	50	75.00	$ 3,750
ovens	Ea.	18	50.00	900
trash cans	Ea.	30	5.00	150
				$ 4,800
	Contingencies			700
	Total, State			$ 5,500
	TOTAL, McKEE CREEK			$116,000

Item	Unit	Quantity	Unit price	Cost
4. SALMON RUN				
Federal				
Access road, parking areas, launching ramp.				
Excavation, borrow	C.Y.	15,300	0.75	$11,475
Fill	C.Y.	18,400	0.25	4,600
Subgrade	S.Y.	13,960	0.50	6,980
Paving, blacktop	S.Y.	10,800	4.10	44,280
Riprap	C.Y.	2,830	5.00	14,150
Paving, concrete	S.Y.	3,160	7.50	23,700
Curb, concrete	L.F.	2,400	2.80	6,720
				$111,905
Sanitary facilities	L.S.			10,200
Water facilities	L.S.			3,000
				$125,105
	Contingencies			18,895
	E & D, S & A			12,500
	Total, Federal			$156,500
State				
Picnic facilities: tables	Ea.	50	75.00	$ 3,750
ovens	Ea.	18	50.00	900
trash cans	Ea.	30	5.00	150
				$ 4,800
	Contingencies			700
	Total, State			$ 5,500
	TOTAL, SALMON RUN			$162,000

DESIGN MEMORANDUM NO. 10A
PRELIMINARY MASTER PLAN
A PART OF THE MASTER PLAN
FOR
SUMMERSVILLE RESERVOIR
GAULEY RIVER
WEST VIRGINIA

APPENDIX II
VIEWS OF OTHER AGENCIES

U. S. ARMY ENGINEER DISTRICT, HUNTINGTON
CORPS OF ENGINEERS
HUNTINGTON, WEST VIRGINIA

MAY 1960

APPENDIX II

VIEWS OF OTHER AGENCIES

TABLE OF CONTENTS

EXCERPT FROM

"A DETAILED REPORT ON FISH AND WILDLIFE RESOURCES
SUMMERSVILLE RESERVOIR"

U. S. FISH AND WILDLIFE SERVICE

AUGUST 1958

Without the Project

24. The Gauley River is swift flowing and has a favorable distribution of pools and riffles. Its basic fertility is of average quality compared to other streams which drain well-forested watersheds in this general area. It supports a warm water fishery which, because of pollution, is of average quality at present. Fish reproduction and growth have been satisfactory and the river has a reputation for the good fishing it once provided. Usually referred to as a smallmouth bass stream, it supports such other species as walleye, rock bass, flathead and channel catfish, sunfishes, rough fishes, and a variety of forage fishes.

25. Restricted access limits the use of the river by fishermen. Heavy fishing pressure occurs at the highway bridges where there is easy access to the river, but elsewhere along the stream utilization is markedly less. More ardent fishermen walk to favorite fishing areas on well-worn paths which lead to the stream through breaks in the rough topography. Many groups of fishermen camp in the remote areas and fish for several days.

26. The coal pollution discussed earlier in this report has had an unfavorable effect on the quality of the river from a fisheries standpoint. In a section of the river below the mines, silt and heavier coal wastes have settled on the stream bottom, creating a zone practically devoid of aquatic life. Farther downstream and in the project area the presence of solid coal pollution in the river has, among other things, disrupted the stream fishery in the following ways: (1) Fine silt deposited on the stream bottom interferes with spawning, the reproduction of aquatic food organisms, and plant growth. (2) Fine grandular materials are found in the gills and throughout the digestive tracts of resident fishes. (3) High turbidity of the water caused by silt particles in suspension limits plankton growth, an indispensable early stage of the biotic cycle. (4) The ugly appearance of the river impairs its esthetic quality to such an extent as to greatly reduce fisherman enjoyment; in fact, at times it discourages fishing altogether. Cessation of the pollution would result in the river's return to normal productivity and attractiveness within a relatively short time.

27. Fisherman success is fair at present in spite of the stream condition, but it is about 50 percent less than it was prior to the recent introduction of mine pollution. Fishermen report that the catch consists mainly of large bass and catfish. Smaller fish

are no longer taken in such large numbers as before. It is believed, therefore, that fish reproduction does not occur in sufficient quantity to produce a well-balanced population.

28. Fishing pressure is not heavy in any of the streams which join the river within the project area. Hominy Creek, the largest tributary, supports a fair population of bass and catfish and this resource is utilized to some extent by local fishermen. However, except for the segment near its mouth, the value of this stream fishery is greatly overshadowed by that of the main river. Muddlety Creek supports a minor fishery of pan and rough fish primarily. Its greatest value lies in the bait it produces for fisherman use elsewhere. This resource will be affected very little by the proposed project. None of the remaining tributaries support populations of food fishes. Their importance is limited to the production of bait fish.

With the Project

29. Development of the proposed project will bring about alterations in the environment for fish life along the reach of river in the reservoir lying upstream from the summer pool, throughout the summer pool area and along at least a 25-mile reach extending downstream from the dam. A description of the anticipated impact on these three segments is contained in the following paragraphs.

30. It is not possible to define with any complete accuracy the extent of the area upstream from the summer pool which will be affected materially by the establishment of the project. Damages to the stream environment will occur along the reach lying immediately above the pool, because of periodic inundations and also because of some intrusion by less desirable rough-fish species from the pool. However, it is not expected that the stream sections of steeper gradient in the upper portion of the project area will provide satisfactory habitat for rough-fish species, and it is doubtful that they will flourish above the summer pool for any appreciable distance. On the other hand, the upstream reaches may benefit, at least seasonally, from the movements of game fishes from the pool. In summary, it is believed that stream segments lying upstream from the summer pool will sustain only small losses from inundations and will benefit from movements of desirable fish from the ponded area.

31. The reservoir at summer pool level will inundate and destroy more than 13 miles of main stem river and an additional small mileage along tributary streams. Furthermore, the operational plan for the reservoir reveals that it will provide somewhat less than optimal conditions as a fishing area and as fish habitat. As in the

case of any widely-fluctuating reservoir, the aesthetics of the reservoir will suffer after the summer drawdown period is well underway, through the exposure of extensive barren shorelines. These shorelines will be subject to the action of erosion during such periods, with part of the eroded materials being transported to that segment of the reservoir which will comprise the winter pool. Accordingly, some long-term diminution in the capacity of the minimum pool may be expected. Erosion will be most severe in the McKee Creek and Battle Run sub-basins, because of the size and velocity of these streams and the quantity of erodable material present. This erosive action will also contribute to anticipated turbid conditions. The disparity in surface acreage and capacity between the summer pool and the permanent pool will be in the ratio of about eight to one. This will result in abnormal crowding of the fish population during much of the year. However, the more intensive period of crowding will take place after the growing season and some confinement of the total population will favor the more important predator species during the late summer and early fall. Continued gross discharges of the reservoir storage year after year will depreciate the fertility of the reservoir at a somewhat rapid rate. Finally, the continuance of coal waste pollution into the post-project period also will tend to reduce the volume of the winter pool. In addition, it is probable that heavy depositions of these wastes will occur in the streambed from the mines to the winter pool. This condition will be accentuated because the heavier silt will be deposited at the junction of the reservoir and river, which point will be constantly changing. Heavy depositions of coal wastes in the reservoir area will be most undesirable, both from the standpoint of the fish and the fishermen.

32. Despite the foregoing, and probably with certain benefits because of the degree of crowding which will occur, the Summersville Reservoir is expected to produce an attractive and well-utilized fishery. Water level fluctuations are not expected to interfere radically with the spawning of the choice species and the production and availability of forage species of fish should be satisfactory. Largemouth bass will largely replace the smallmouth bass as the most important fish in the post-development fishery. The catfishes will become successfully established and it is also expected that walleyes will inhabit the reservoir. Many species of minnows and sunfishes will be present. It is believed that the reservoir fishery will more than compensate for losses in the mileage of stream fishery.

33. The temperature of water released from the reservoir during the summer will be much lower than pre-project summer temperatures of the river. This will change a segment of the river habitat to one better suited for cold water species. It can be said with some certainty that the water temperature will be suitable for trout in a

zone between the dam and the mouth of Twelvemile Creek some 25 miles downstream. Natural reproduction of trout may occur in this stretch of river, but it is anticipated that the fishery will have to be maintained artificially by stocking if it is to sustain heavy fishing pressure. The entire section of Gauley River downstream from the dam will be benefitted by a reduction in bottom scouring as a result of the proposed dam. It is expected that, with proper provision for sustained minimum flows, the downstream fishery will be benefitted by the project. The development of a trout fishery below the dam should be an asset to the area.

34. As indicated in the foregoing paragraphs, the project is expected to be beneficial to the fishery resources of the Gauley River. In order to assure these benefits, however, it is necessary that adequate consideration be afforded regarding two items. These are: the need for maintaining adequate minimum releases below the dam and the vital importance of maintaining good water quality in the streams and the reservoir. This latter point is emphasized, because of the existence of coal mine wastes in the drainage area.

Wildlife Section

Without the Project

35. Land use within the project area consists primarily of two general types; forest land in various stages of development, and poorly maintained or abandoned farms, many of which are reverting to forest land. Of the farms that are operating in the project area, none appears to be intensively managed or highly productive. Considered by geographic units, the land cover is generally as follows: The river gorge and the drainage basins of Hominy and Persinger Creeks are almost entirely forested. McKee Creek and Battle Run basins are each about 40 percent forested and 60 percent in agricultural use. The forests range from sub-pole size in many of the accessible areas and on abandoned farms to mature timber in the more inaccessible areas. Generally, there is a gradation of timber quality depending on degree of slope, aspect, and fire history, but as a rule the quality of the timber is high.

36. The white-tailed deer is the principal big-game species in West Virginia. However, deer occur only as a widely-scattered population in the reservoir area, presumably because of the advanced growth stages of much of the unbroken forest. Deer hunting pressure is very light as compared with that on other areas nearby, where greater numbers of deer are killed each year. State kill records reveal that 10 deer were killed in the vicinity of the dam site during the 1953 hunting season when the taking of either sex was legal. Since

that time only one deer has been killed on the area. Deer are regularly taken in the headwaters of Muddlety Creek, McKee Creek, and Battle Run, but the hatitat of these areas is not homogeneous with the reservoir site habitat and the two areas do not possess comparable populations. Black bears, the only other big game animal resident in West Virginia, do not regularly occur in this part of the State.

37. Upland game found in the vicinity of the proposed reservoir consists of ruffed grouse, gray and fox squirrels, cottontail rabbits, woodchucks, bobwhite quails and a few wild turkeys. Turkeys use the river gorge occasionally, particularly as escape cover, but most of this use is downstream from the dam site adjacent to a large tract of unbroken mature timber which harbors the flock. According to State records, no turkeys have been killed on the reservoir site in recent years. Grouse and squirrels occur in most of the forest of the project area, but the river gorge does not provide high-quality habitat for these species. Those that do occur remain unutilized because of the difficulty in hunting. As in the case of deer, grouse and squirrels are more numerous in the lower elevations of the tributary valleys and on the ridges surrounding the project site and are more intensively hunted on these areas. The most valuable wildlife area to be affected by the proposed project is the farm-game habitat which lies in the McKee Creek-Battle Run sub-basins. The recent abandonment of farms has contributed to the irregular distribution of cover types ranging from brier patches and woody thickets to mature forests. Cottontail rabbits, bobwhite quails, and woodchucks find these areas especially attractive. Large numbers of these animals are harvested in these sub-basins annually. The peninsula of elevated land known as Long Point, which divides the McKee Creek and Salmon Run watersheds, also provides some excellent farm-game habitat. Hunting pressure and game kill have not been ascertained for this area, but they are similar to that of the McKee Creek valley since the habitat is comparable and posting is insignificant.

38. The quality of the fur-animal habitat of the project area is typical of that which is found within the distribution range of fur animals in West Virginia. Minks and muskrats occur along the waterways in this vicinity, but they are not numerous. Beaver occasionally use the water courses within the reservoir site but resident populations have not become established. Raccoons, foxes, skunks, and oppossums occur as part of the resident fauna. The rocky outcroppings along the Gauley River and elsewhere on the area provide good denning site for these species. Most fur animals are especially difficult to hunt in these locations because of their habit of denning when pursued by dogs. Night hunting for raccoons is, nevertheless, a very popular activity in this area. Fox hunting is also popular

in this part of the State and fox numbers are controlled with fair success. Trapping of these species is seldom a profitable undertaking on the project area because of the difficulty in making the necessary frequent visits to the traps.

39. The project area contains no high-quality waterfowl habitat. A part of Gauley River is considered to be of significance to waterfowl, but this rating is based on resting use by migrating ducks and geese, and all other use of these waters by waterfowl is incidental.

With the Project

40. Development of the project will cause marked changes in much of the wildlife habitat of the project area. The 2,723 acres of land below elevation 1650 will be cleared of cover. A large part of it will be inundated during most of the growing season. This area will be a total loss to wildlife during the greater part of every year. Included in this area is a large portion of the cliffs along the main stem, all of the forest habitat of lower McKee Creek and Battle Run, and much of the farm game habitat of these same watersheds. In the zone between elevations 1650 and 1671, which will be less frequently inundated, a transition of the vegetative cover will occur to the extent that woody species tolerant of periodic flooding will become the principal types present. This area should continue to comprise satisfactory habitat for most upland-game animals but nesting will sometimes be disrupted. In the zone between elevations 1670 and 1710 and on the Long Point peninsula, where access severance will result in its abandonment as agricultural land, the existing land cover will revert to forest. Throughout most of the transition period the quality of this habitat for farm-game species will be improved. After the transition of these cover types is completed, this area will resemble the surrounding forest land and lose its attractiveness to farm-game species. It is not expected that this project will affect materially big-game populations of the project area. After the reversion of farm lands surrounding the summer pool, deer habitat will be improved, provided the high quality of the adjacent habitat does not deteriorate.

41. Habitat of small-game species will undergo a considerable change as a result of this project. Squirrel and grouse range will be destroyed in and near the river gorge and in the lower elevations of the tributary valleys. Turkey range will be disturbed to some extent also by the loss of this area. The low quality of that habitat and the present low utilization of the resource, however, limits this loss to relatively minor proportions. If the better quality habitat on the upper elevations surrounding the project area

remains in its present land-use class, and the abandoned farm lands of the reservoir area revert to forest land, the quality of the forest-game habitat should improve after project construction. Much of the high quality farm-game habitat presently occupied by rabbits, quails, and woodchucks will be seasonally inundated. A change in the land use practices on the remaining portion of the project area will eventually cause an additional loss of farm-game habitat but a gain to forest-game habitat. This should be viewed as a loss of a scarce commodity and an increase in one already abundant.

42. The fur-animal situation is not expected to change greatly as a result of this project. Most of the attractive denning sites in the gorge will be inundated, but sufficient denning sites still remain at other locations in the project area. Muskrat and beaver use of the area will remain essentially the same as at present. Mink will be affected to some degree by the absence of cover around the reservoir at certain seasons of the year, but this is not expected to have an appreciable effect on this species. Raccoon, fox, skunk, and opossum populations should remain at about pre-project levels.

43. Waterfowl use of the project area will increase in the post-project period. The larger surface area and the quiescent waters of the reservoir will attract greater numbers of migratory waterfowl than Gauley River now attracts. Nesting and year-round use of these waters by ducks and geese is not expected, however.

44. Development of the proposed project will cause damage to the wildlife habitat of the area. Fortunately, much of the habitat that will be destroyed is of low quality and not highly utilized at present. Nevertheless, that which will be permanently inundated and much of that which will be seasonally inundated will be permanently removed from production, precluding any future development of these lands for wildlife purposes. Although the reservoir will be more attractive to waterfowl than is Gauley River at present, this use will not compensate for the loss of upland wildlife habitat. Once in operation, the reservoir will bring about changes in the land use pattern on much of the land surrounding the reservoir. During the initial period of change, these lands will increase in value to farm-game species but in time will revert to forest, already abundant in the area, and become somewhat less valuable to the local wildlife resources.

Discussion

45. Cold-water releases from Summersville Reservoir will cause the deterioration of the existing warm-water fishery of the Gauley River for some 25 miles downstream from the dam. Post-project physical conditions in this reach of the river will be generally suitable for trout, however, and a trout (cold-water) fishery equal in value to the warm-water fishery destroyed would be possible if proper flow regimens are maintained. The optimum flows for a cold-water fishery in this reach of the river will be between 100 c.f.s. and 300 c.f.s. A minimum flow of 100 c.f.s. will be necessary at all times to maintain desirable fish life in this river section, while water volumes of 300 c.f.s. or less will be needed to permit maximum sportsman utilization of the resource. Since the major part of trout-fisherman activity in this region occurs during the spring months; it will be particularly important that flows not greatly exceed 300 c.f.s. for any extended period at that time of the year.

46. An insured minimum flow of 200 c.f.s. from Summersville Dam during the months of April and May would be highly desirable if fishery losses attendant to the project below the dam are to be mitigated. This flow would provide for maintenance of fish life and present near-optimum stream conditions for fisherman utilization. In addition, such a minimum flow provision during this period would decrease somewhat the incidence of releases in excess of 300 c.f.s.

47. Planned summer and winter pool operations will destroy almost all of some 2,700 acres of habitat presently being utilized by forest and farm-game animals. An additional 700 acres of similar habitat in the zone between the top of the summer pool and the five-year flood frequency elevation will be altered unfavorably. Although most of the wildlife habitat to be destroyed permanently by inundation cannot be replaced, proper land and water management (including provision for maximum sportsman utilization) by the appropriate State fish and game organization, throughout the post-project era would do much to mitigate wildlife losses. Wildlife management on areas such as the peninsula known as Long Point would be especially important, since the increased utilization that would be possible with proper management would partially replace that which will be lost completely in the planned pool areas.

48. Winter erosion appears inevitable in the zone between the winter and summer pool levels, which will result in loss of storage capacity in the winter pool area and a decrease in the fish-carrying capacity of the winter pool. If a suitable winter cover crop could be established, annually, on erodable portions of this zone, the

interests of both the project and the fishery would be served. Such a procedure would also have values for wildlife through providing some food and cover during the critical winter season in an area that would otherwise be useless.

Recommendations

49. It is recommended that:

a. A General Plan, pursuant to Section 3 of the Act of August 14, 1946 (60 Stat. 1080), be entered into by the Secretary of the Army, the Director of the Conservation Commission of West Virginia and the Secretary of the Interior to provide for the management and development of project lands and waters as a public hunting and fishing area.

b. All Federally-owned lands and project waters in the project area be open to free use for hunting and fishing so long as title to the lands and structures remains in the Federal Government, except for sections reserved for safety, efficient operation, or protection of public property.

c. Leases of Federal land in the project area reserve the right of free public access for hunting and fishing.

d. Releases of water made from the reservoir be not less than 200 c.f.s. during the momths of April and May, and not less than 100 c.f.s. at all other times.

e. The planning agency cooperate wi th the West Virginia Conservation Commission in conducting experimental fall plantings of a winter cover crop on suitable areas within the zone to be inundated by the summer pool; the feasible features to be incorporated in annual project operations.

Conclusions

50. Establishment of the Summersville Reservoir as planned will destroy, or cause the deterioration of, about 40 miles of the existing warm-water stream fishery of the Gauley River in and below the project area, and alter somewhat an additional 7 miles in the upper portions of the reservoir site. The 15 miles of stream-fishery lost above the dam will be replaced by a reservoir fishery of the warm-water type which will be of at least equal value to sportsmen of the area if managed properly. Incorporation of the provisions of Recommendation "d" in project operational plans would, through replacement by a suitable cold-water fishery, provide adequate mitigation for the deterioration of 25 miles of downstream warm-water fishery.

51. The overall effects of this project on wildlife resources of the area will be detrimental. Incorporation of Recommendations a, b, c and e into project plans will provide mitigation for some of the inherent wildlife losses.

52. This report is based on engineering data supplied by the Planning Agency as of March 26, 1958. This Bureau should be advised of any changes in these data in order that consideration may be given to the need for a revised report.

/s/ D. R. Gascoyne
Regional Director
August 1958

UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Bureau of Sport Fisheries and Wildlife
59 Temple Place
BOSTON, MASSACHUSETTS

April 22, 1960

District Engineer
Huntington District
U. S. Corps of Engineers
New Federal Building
502 - 8th Street
Huntington, West Virginia

Dear Sir:

The detailed report on fish and wildlife resources in relation to the Summersville Reservoir project, dated August 1958, was prepared by this Bureau in cooperation with the West Virginia Conservation Commission on the basis of project plans set forth in the General Design Memorandum. These plans provided for purchase in fee simple of approximately 4,500 acres of severance lands, including about 817 acres of land above the maximum pool line on the area known as Long Point, bounded on the east, south, and west by the projection of the proposed reservoir into Salmon and McKee Creek valleys and on the north by County Route No. 9. Purchase of this area appeared justified in lieu of the more expensive alternative of constructing new roads. We found that use of severance lands as public hunting areas would mitigate the wildlife losses which will result from project construction. It was also our belief, as it is now, that management of these lands by a public conservation agency would help fulfill the multiple-use objectives of the project and otherwise serve to maintain the productivity of reservoir lands and waters in the best interest of the general public. To accomplish these objectives, our report contained a general recommendation to the effect that these lands be made available to the State for fish and wildlife management purposes.

Apparently, there is now some question as to whether these lands will be purchased as originally planned. We are restating, therefore, the extent of wildlife losses which will result from project construction and the means and measures necessary to prevent such losses. Prevention of loss is contingent upon (1) purchase of the 817 acres previously mentioned, (2) fee simple acquisition of 278 acres on Long Point for which you now plan to acquire flowage easements, and

(3) making this combined area available to the West Virginia Conservation Department for administration under a General Plan for Fish and Wildlife Management.

Approximately 2,500 acres of land will be inundated by the normal summer pool of the Summersville Reservoir. Present annual use of these lands for hunting recreation amounts to about 322 man-days, based upon a variety of species available, and hunter expenditures in relation to this resource amounts to about $1,800 annually. About 730 additional acres of land, lying between the summer pool and the 5-year flood frequency elevation, will be unfavorably altered by project operation. Use of these lands for hunting will be reduced approximately one-half, or a loss of about 50 man-days of hunting, resulting in further reductions in sportsman expenditures amounting to approximately $200 annually. Present use for nature study, bird watching, and other activities dependent upon wildlife resources is insignificant.

While admittedly light, the hunting pressure presently sustained by this area does not include deer and turkey hunting (establishment of deer and wild turkeys on the area is a current managament objective of the West Virginia Conservation Commission), nor does it reflect anticipated future use of the area for hunting. Aside from the unusual scenic values inherent in the Gauley River Gorge, the principal value of these rugged, comparatively isolated lands is for wildlife production. With expected advances of civilization and subsequent intensive use of arable lands, non-arable areas such as this will become increasingly valuable for the maintenance of many forms of hunting, nature study, and outdoor recreation. Within a few years, denser populations of deer and turkeys could be established on the area. With a greater variety of wildlife species available and expected increases in hunting utilization, use of these lands for hunting would be expected to increase greatly in years to come. During the next 100 years, hunting utilization would be expected to average about 1,150 man-days annually, with related expenditures amounting to about $5,600 a year (based on present prices). Non-hunting uses of the area, such as nature study and bird watching, likewise would be expected to increase to at least 1,000 man-days annually. Based on user fee values developed by the National Park Service, the value of this form of recreation would amount to about $1,600 annually.

With the project in operation, but without purchase of the lands in question, wildlife management would not be economically justifiable on the 730 acres of Federally-owned lands surrounding the reservoir. Also, it is highly unlikely that the seasonally flooded reservoir lands in the McKee Creek and Battle Run areas could be used profitably or economically by the State for general conservation and/or fish and wildlife management purposes. In this,

particular reference is again made to our detailed report of August 1958 in which we recommended joint State-Federal experimentation to determine the feasibility of annual cover crop plantings in the area as an erosion control measure and to improve the quality of the reservoir for fish and wildlife.

Purchase in fee simple of the 1,095 acres of land on Long Point, together with the 730 acres of reservoir lands above the summer pool elevation and lands in the McKee Creek-Battle Run area, would constitute sufficient acreage for fish and wildlife management purposes, and State interest in developing and maintaining this area would be high. The West Virginia Conservation Commission estimates that it would invest about $5,000 annually toward management of this area. In return for this investment, it would expect the area to provide a minimum of 1,800 man-days of hunting recreation for the species now present, representing sportsman expenditures amounting to about $7,500 annually. In addition, attempts would be made to make the area more attractive for waterfowl. If successful, this would increase significantly hunter use of reservoir lands. Furthermore, the reservoir lands and the wildlife lands on Long Point would be managed in such a way as to increase non-hunting use of the area for such recreational and educational activities as nature study, wildlife management demonstrations, dog training, and field trials. Based on experience with similarly managed areas in West Virginia, the Conservation Commission estimates that people will use the area for these purposes to the extent of 5,000 visitor-days, annually. User-fee evaluation for this form of activity would amount to more than $9,000 annually. It is pertinent to point out also that Long Point is the only area near the proposed reservoir that would provide reasonably good access to the winter pool for bank fishermen. If this area were to remain in private ownership and posted against trespass, fisherman use of the reservoir during periods of drawdown would be reduced significantly.

In summary, inundation of 2,500 acres and deterioration of habitat on 730 acres which will be frequently flooded will cause loss of recreational use for hunting to the extent of 1,150 days annually, averaged over the life of the project. Related reduction of hunter expenditures, based on present prices, will amount to $5,600 annually. There will be additional losses of recreational use by those interested in nature study, bird watching, and other pursuits dependent upon fish and wildlife resources to the extent of 1,600 days annually, averaged over the life of the project.

These losses can be prevented by fee simple acquisition by the Federal Government of 1,095 acres of land on Long Point and subsequent management and development by the Conservation Commission. The entire area is necessary to be large enough to warrant intensive management by the Commission.

In the judgment of the Bureau of Sport Fisheries and Wildlife and the West Virginia Conservation Department, the wildlife losses which will result from construction of Summersville Reservoir will be sufficiently significant to seriously hamper efforts to meet future recreational needs based upon fish and wildlife resources in this area. Therefore, it is concluded that prevention of this loss by additional land acquisition at a cost of approximately $200,000 to the Federal Government and subsequent management by the Conservation Commission at an annual cost of approximately $5,000, annually, is fully justified in accordance with the intent and provisions of the Fish and Wildlife Coordination Act (Public Law 85-624).

In view of the above, this Bureau, in cooperation with the West Virginia Conservation Commission, recommends that 1,095 acres of land on the area known at Long Point, be purchased in fee simple by the Federal Government at a cost of approximately $200,000 as mitigation for wildlife losses to be incurred as a result of project construction, and to provide for adequate management of the fish and wildlife resources which will become associated with the project. It is further recommended that these lands, together with other Federally-owned lands and water areas included in the Summersville Reservoir site, except for such portions as may be reserved for reasons of safety, efficient project operation, or protection of public property, be made available to the West Virginia Conservation Commission for fish and wildlife management under the provisions of a General Plan as authorized by the Fish and Wildlife Coordination Act (48 Stat. 401, as amended, 16 U.S.C. 661 et seq.).

Sincerely yours,

/s/ Fred L. Jacobson

Fred L. Jacobson
Acting Regional Director

MEMORANDUM REPORT

POTENTIAL RECREATIONAL DEVELOPMENT

of the

SUMMERSVILLE RESERVOIR

Prepared by

WEST VIRGINIA CONSERVATION COMMISSION
DIVISION OF STATE PARKS

CONSERVATION COMMISSION
DIVISION OF STATE PARKS

October 3, 1957

RE: Gauley River Reservoir - Potential Recreational Development

It is assumed -

1. That Elev. 1650 would be the water surface for the months of June, July and August, with a maximum fluctuation of 33 feet in these three months.

2. That Elev. 1750 would be the maximum flood pool, with this type flood once in one hundred years expected.

3. That after October and during the winter months that the water level would stand, for all practical recreational purposes, in the old stream bed.

4. That after October 1 the gates would be opened and irregular drawdown would occur so as to be free of storage water by November 30 of each year.

Potential development under the above conditions limits recreation to one season of the year; namely, June, July and August, while there is ample water to fill the reservoir.

Summertime recreation is limited here to scenic values, boating, water skiing, swimming, picnicking, and camping.

Fishing

Stream pollution being a problem at present, fishing is not expected to be a major recreation activity.

Housing Facilities

Due to the isolation of this area, overnight accommodations should not be neglected and, because of poor fishing conditions, accommodations will not be needed to serve fishermen exclusively. Because there are no large forested tracts of land nor areas for extensive trail development and this area being accessible by automobile, there being an East, West, North and South route at or nearby, leads to the conclusion that private motel development will reach a high peak and could properly serve this area since guests will be primarily overnight or weekend.

It is obvious that there are no comparable bodies of water within a day-use area radius to adversely affect attendance here. It is apparent that the larger urban population centers have a choice of Bluestone, Sutton or Gauley for a weekend of recreation; therefore, the Reservoir with the drawing card will get the largest attendance.

This factor, or drawing card, could easily be fishing conditions and/or prices of accommodations; i.e. other factors being equal. We could ill afford to build a house of competition with our existing Bluestone until such time as Bluestone attendance reaches its peak in 1965. Therefore, no immediate plans for State supported housing at Gauley.

It is obvious that our nearby Carnifex Ferry Battlefield State Park is being over-used for picnicking and general weekend day use. With the availability of water for boating and swimming, plus the added convenience of a good access road from the main traffic arteries, this area could absorb our total picnic and playground crowd. This would allow the hallowed battleground at Carnifex to recuperate from over grazing as a result of over use. We could then mark the lines of the trenches and battlefield without taking from the public their playgrounds.

Group Camping

Somewhere in every county there is a group, or number of groups, who want to select a spot for their own clannish purposes. They want to possess a place of their own on which they can camp as their own organization dictates. Generally they prefer a park-like atmosphere but suffer from a true understanding of that which they seek. It would be a great public service to a large number of people if their intention could be reined in and our State Park System could guide them toward an economical development.

Here is an area that lends itself to isolated plateaus and valley overlooking broad expanses of water. Presumably this section could be set aside to be subdivided for the various church and fraternal organizations.

Area Development

Selection of sites has been made purely in the abstract analytical sense without ample field studies; however, these sites are described briefly.

DAY USE FOR PARK PURPOSES:

Area A. Development to consist of picnic area, boat dock and coffee shop. Coffee shop to be a contact station with small dining area and this area to be administered from the coffee shop headquarters building. It is a proposed Lease-Management Contract.

Area B Swimming area and extension of picnic area--area to include game courts, playground equipment, if sites available.

CAMPING

Area C. Future or long range development. Reserve for overnight camping.

Area D. Group camping exclusively.

Area F. Tent camping area.

MOTELS

Area G. Private motel development, coffee shop, picnic area, and boat dock.

GAME MANAGEMENT and/or PUBLIC SHOOTING AREA

Area E.
and
AREA H. Also any and all other federal land on Hominy and Deer Creeks.

Due to the isolation of Tract E by flooding of access roads during the spring and summer, and the accessibility over surfaced roads after October 1, this tract is probably adaptable for game management control. Due to the existing vegetation, meadow, pasture, and small woodland tracts, game management practices are the most feasible form of recreation attainable in this tract.

Isolation from roads excludes Tract H from the usual day use classes of public use; however, it is believed that hunting will be an acceptable use.

OTHER

Area I. Swimming area along old Route 19, where it is now flooded. Reserve a choice section of this area for private motel development. Complete camping area, including water, sewage, electric hook-up for trailers, as well as tables, charcoal grills, water fountains and public toilets with showers for the campers.

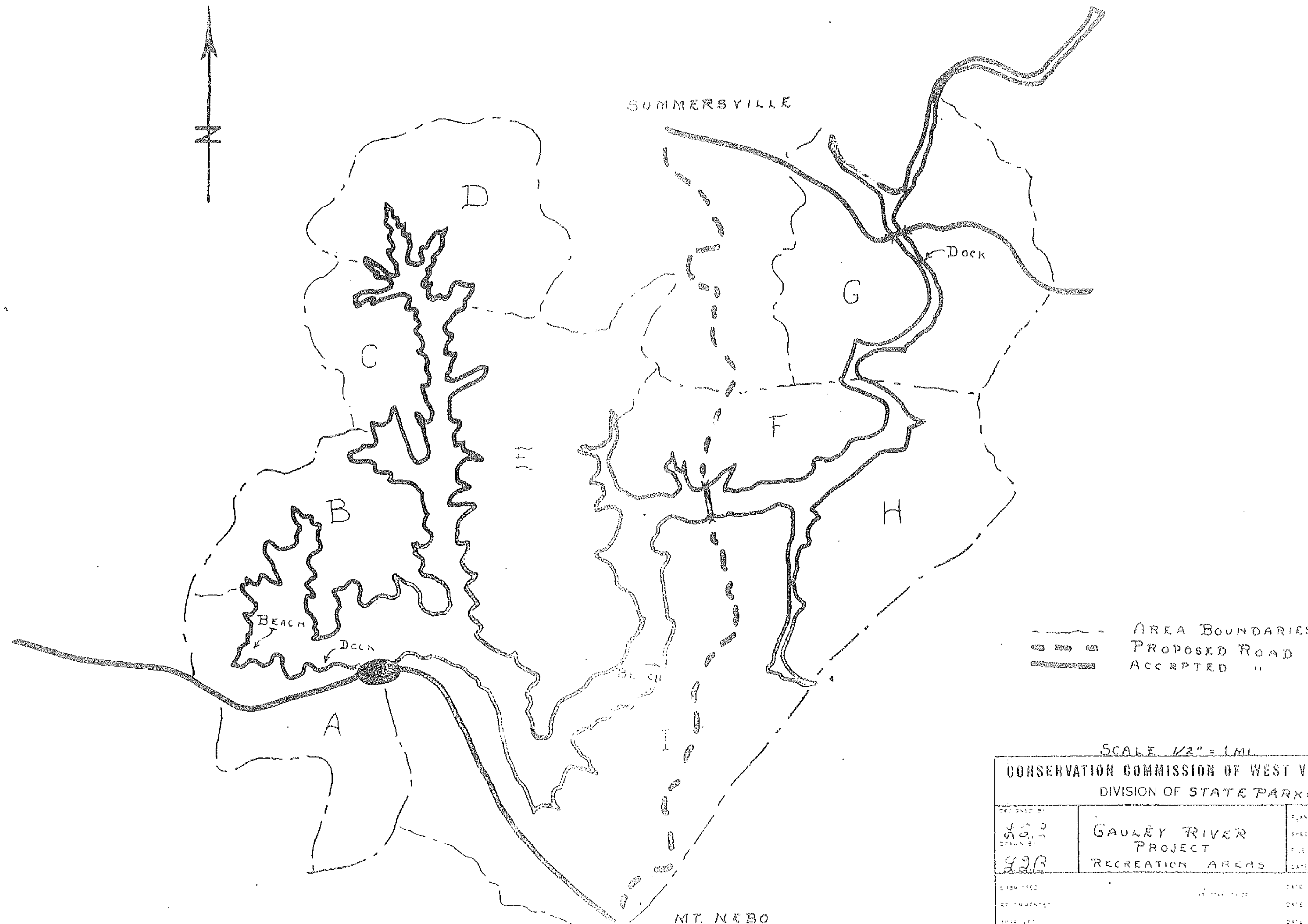
Develop a Coffee Shop and Trading Post headquarters for control over camping area, and provide nearby a 25-table picnic area, for quick turnover.

PROPOSED ROAD

To relocate a North-South route of national importance so as to by-pass one of the most scenic bodies of water within the State of West Virginia shall be a crime against the economic laws of the "Tourism" industry.

It is strongly urged by this organization that a high level bridge be constructed across the Reservoir upstream from Hughes Ferry so as to connect two existing secondary roads. This proposed road will save the State of West Virginia thousands of dollars annually in the maintenance and construction of access roads to the Reservoir. It is also many miles less of major highways to build.

The view, either to the East or West, from this bridge would unfold across a body of blue water for many miles, and that is not a common sight in these mountains of West Virginia.



SCALE 1/2" = 1 MI.

CONSERVATION COMMISSION OF WEST VIRGINIA

DIVISION OF STATE PARKS

DESIGNED BY G.G.B. DRAWN BY G.G.B.	GAULEY RIVER PROJECT RECREATION AREAS

EX. 5